

Modern packaging



Nominated for packaging's Hall of Fame. Story on Page 112

October 1949



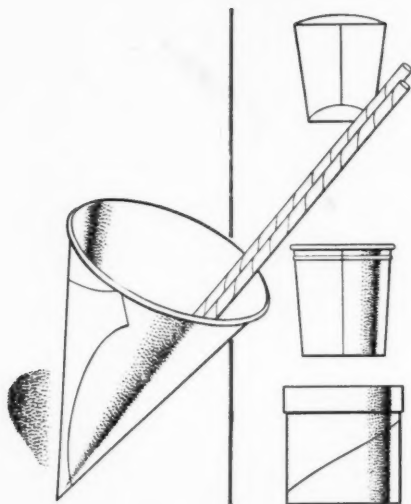
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PROVEN! Synthetic RESYN adhesives that seal in hot or cold liquids far more successfully than vegetable or animal base glues. Why? Because these synthetic resins are inherently insoluble in water. Properly formulated into adhesives by National's process, the bond once set will not redisperse.

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EVERY TYPE OF ADHESIVE FOR EVERY INDUSTRIAL USE



PHOENIX METAL CAP CO. ★ Metal Caps for Glass Packages ★ Chicago 8, Brooklyn 18

Modern packaging



Vol. 23 No. 2 October 1949

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The index of MODERN PACKAGING from September, 1948, to September, 1949, is now ready. Copies of **Volume 22 Index** are available free to any subscriber on written request to the Editorial Department.



... One of the legion of U.S. manufacturers who get low-cost, quality packaging — plus increased floor-space and production — with

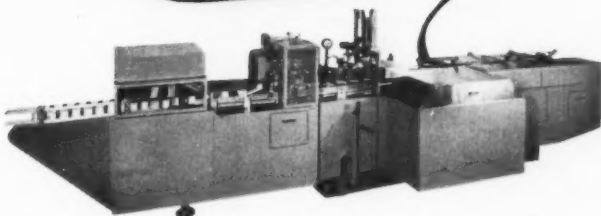
REDINGTON CARTONING MACHINES

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SPEEDY AND ECONOMICAL

THE REDINGTON TYPE 23

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Cartons, meanwhile, is fed from magazine, and expanded into shape. Bottle with circular is inserted, and the carton closed by gluing the end flaps. Glue is also applied to the tuck-in portion of bottom flap to eliminate danger of bottle dropping thru bottom.

F. B. REDINGTON CO. (EST. 1897 110-117) S. SANGAMON ST. CHICAGO 7, ILL.

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Member, Audit Bureau of Circulations

PACKAGING'S BIG MOMENT

THE 11TH ANNUAL FORUM of the Packaging Institute couldn't be more happily timed, coming this month as it does amid growing indications that business in general is emerging from its postwar gyrations both up and down and is now ready to settle into normal, brisk, competitive selling.

This is a situation made to order for the alert packaging man—the opportunity to use packaging, both cost-wise and merchandising-wise, to inch his product ahead of competition. The notebooks and pencils at this year's Forum will get a workout.

The straws in the economic winds are numerous.

ITEM: The President's economic advisers are quoted in a positive statement that the "1949 recession" is over and a good business year is ahead.

ITEM: The frozen foods industry is now chalking up new sales records after a bad slump in 1947 and is pointed to as typical of large package-consuming industries that have gone through the postwar wringer and are now on a healthy basis.

ITEM: The Department of Commerce in its September report on packaging cites "the apparent end of heavy inventory trimming . . . the sudden renewed buying of many container users."

ITEM: The president of one of the largest package converting companies observes in his annual report that "inventories of consumer goods have been reduced by very substantial amounts" and the accelerated rate of orders during June and July indicates that "the corner has been turned."

So the "buyers' market" is turning into something quite different from the problem that was anticipated when the Institute's program was first planned last June—and it is all to the good. Now there is a real opportunity not merely to hold ground through packaging improvement, but to march forward.

The Editors

ACME



Winter

CORPORATION

1559 NIAGARA ST.

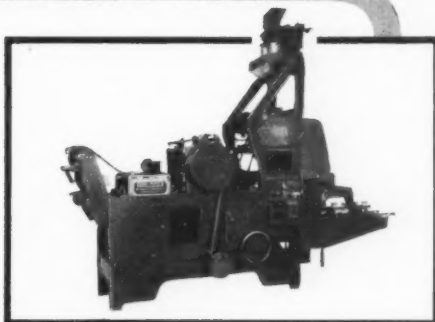
BUFFALO 13, N. Y.

ACME-PAKIT SQUARE BAGGER (MODEL 500)

FUNCTION: *Forms, fills and seals single and duplex square bottom bags*

SIZES (closed): *Minimum— $3\frac{1}{4}$ " x $2\frac{1}{2}$ " x 5"; maximum— $2\frac{1}{2}$ " x $4\frac{1}{2}$ " x $9\frac{1}{2}$ " (and all intermediate sizes) (larger sizes taken with special arrangements)*

A result of over two years of development work and a year of field testing this "one-unit packaging plant" uses rolls of heat sealing cellophane, plio-film, foils and heat sealing papers, both plain and pre-printed. Suitable for packaging any solid material, whether free-flowing or non-free-flowing, the Acme-Pakit Square Bagger turns out 25-30 accurately filled, neatly sealed units per minute. One operator can tend several machines. The built-in filler may be of the volumetric or net-weight type. Special construction features can permit the Model 500 to handle bags of even larger sizes. Registration and labelling devices are available as extras.

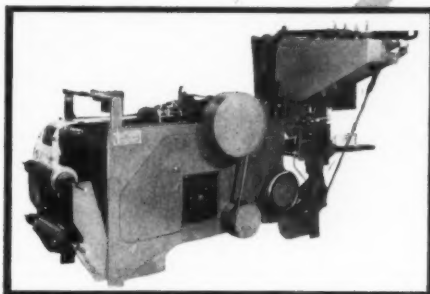


ACME-PAKIT PILLOW BAGGER (MODEL 510)

FUNCTION: **Forms, fills and seals single and duplex pillow type bags*

SIZES: *Width—3" to 6"; length—6" to 12" (with one end open)*

Employing plain or printed heat sealing roll stock, the Acme-Pakit Pillow Bagger is similar in per-



formance to the Square Bagger, but makes pillow type bags rather than square bottom bags. After the bag is formed and filled automatically, the product is settled, and the open end of the bag is securely heat sealed. Output is 25-30 packages per minute. One operator can tend several machines. Registration and labelling devices are available as extras.

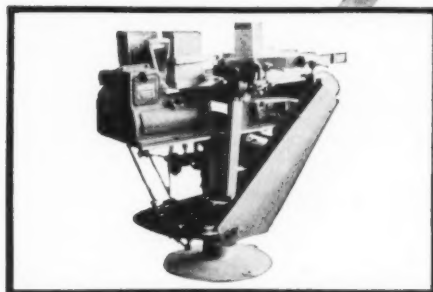
ACME E & R CHECKWEIGHTER

Automatically, the E & R Checkweighter sorts filled cartons, bags and other packages for on-weight, over-weight and under-weight. Not only does it save you money by cutting "give-away" to a bare minimum, but it also prevents the legal difficulties which can arise as a result of under-weight packages.

Accurate to 1/32 ounce, the E & R Checkweighter operates at speeds up to 45 packages per minute, depending on package weight.

In one of the largest, best equipped special machinery plants in the country Acme also produces—

*cartoning machines
loading machines
pressure pack wrapping machines
special machine tools and production machines of all types*



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DETAILS
TODAY

ACME - PAKIT

performance and production
set new highs for packaging machinery

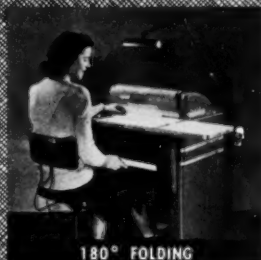
BEAD * FOLD * WELD * DRAW

SHEET PLASTIC

Taber "ENGINEERED" PRODUCTION MACHINES Perform All The Operations
You Need To Fabricate Sales Stimulating Plastic Packages

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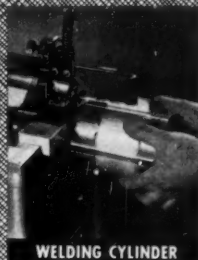
low cost volume basis. These units incorporate such features as clean, economical electric heat, variable speed on power driven models and maximum adjustability to expedite beading, creasing, folding and drawing operations.



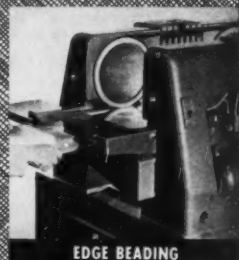
180° FOLDING



DRAWING COVERS



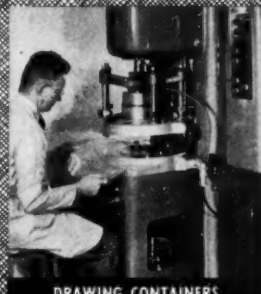
WELDING CYLINDER



EDGE BEADING



CYLINDER END-BEADING



DRAWING CONTAINERS

THERMOBEADER SINGLE-EDGER, MODEL 128-1 . . . Provides an automatic continuous method for beading straight edges of sheet stock, roll material, die-cut blanks and strips at a rate of 500" to 1000" per minute. Forms nine different standard-size beads; fully adjustable for accommodating various thicknesses ranging from .005" to .020".

THERMOBEADER DUPLEX, MODEL 128-2 . . . For double-edge beading, forms two parallel edges simultaneously; fully adjustable for handling sheet stock ranging from 2" to 20" wide.

90° THERMOFOLDER, MODEL 123 . . . Forms a 90° crease in sheet plastic material from .005" to .020" thick up to 30" wide. Enables you to fold in either rubber or metal dies, eliminates over- or underfolding. Ball bearing action, a pleasure to operate.

180° THERMOFOLDER, MODEL 103 . . . Forms U-Type, 180° fold, with sides tight together, without tearing, cracking, or opening up. Provides controlled folding cycle that enables average operator to produce 500-1000 single folds per hour in material of .005"-.020" thickness and up to 18" wide.

THERMODRAW PRESS (AIR-HYDRAULIC) MODEL 129 . . . Forms seamless cylindrical containers and covers up to 4" in diameter with a depth of 1 3/4" on a single draw. Accommodates material .005" to .020" in thickness.

THERMODRAW PRESS, (EL-HYDRO) MODEL 119 . . . Forms seamless cylindrical containers and covers up to 10" diameter.

HF PLASTIC WELDER, MODEL 137 . . . Forms and welds lap joint cylinders with high frequency electric current. Capacity 1 1/2" to 8" in diameter and 1 1/2" to 5" long. Also welds corners of square boxes.

THERMOCURLER, MODEL 135 . . . For beading ends of lap-joint cylinders 1 1/2" to 8" in diameter and 1 1/2" to 15" long. Hand-fed, fully automatic companion machine to Taber Thermoseamer.

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	Geon Polyblend Latex 550 x 20	coated boxboard for food cartons
	Geon Latices 11X and 15X	decorative and protective coatings for wrapping paper and fiber shipping containers
	Geon Plastic Latices PX-8 and PX-18	
GEON POLYBLENDS for extruding packaging films and for molding liners and gaskets.	Geon Polyblend 500 x 503	food packaging film
GEON RESINS for calendaring rigid transparent sheets, for molding gaskets and liners, and for casting or extrud- ing packaging films.	Geon 100 and 200 series resins	rigid transparent boxes, flexible shipping bags and bag liners
	Geon paste resins	protective coatings, linings, and seals

Complete information on any of these materials will be furnished promptly. Helpful, technical advice on your applications is yours for the asking. Please write Dept. S-5, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio.



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In Ethical Drug Products, For Instance



THE CLAY-COATED BOX BOARD THAT'S CUSTOM-MADE FOR EVERY ORDER

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For Uniform, Clean-Surfaced Packaging Perfection

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In every business, in *your* business, Ridgelo packaging can assume real importance as an effective selling aid! Since each order is specifically designed to suit *your* needs, the hard-to-find essentials of productive packaging, *individuality* and *suitability*, are always present.

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Illustrated: Milprint Lestro
printed heat sealing
aluminum foil.

*This insert produced
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Give your packaged products extra "push" at the point of sale. Milprint will plan and produce colorful, effective displays, cards, booklets, broadsides for you. Get them all at one stop — Milprint.

Milprint heat sealing aluminum foil overwraps keep Wortz Crackers fresh by keeping moisture *out*. In Pioneer Frozen Food packages Milprint foil overwraps are used to seal moisture *in*.

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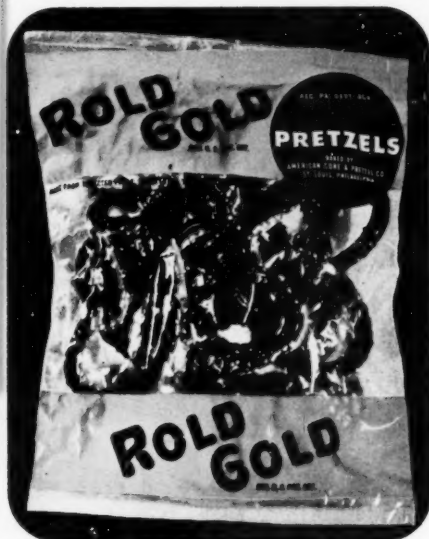
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PRETZELS**

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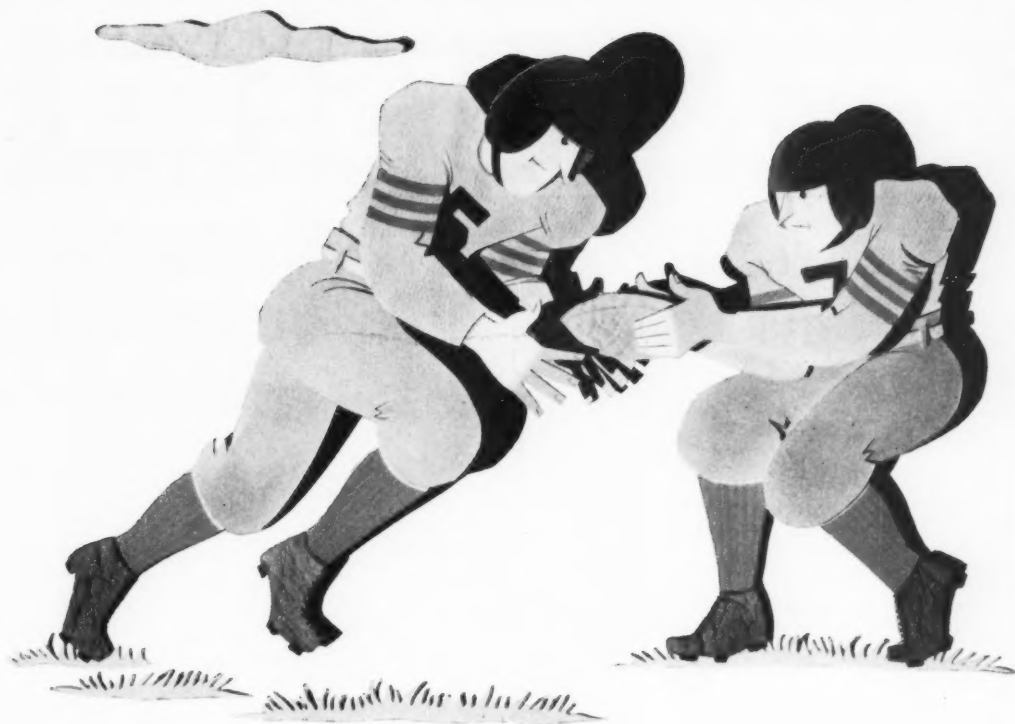
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OCTOBER 1949

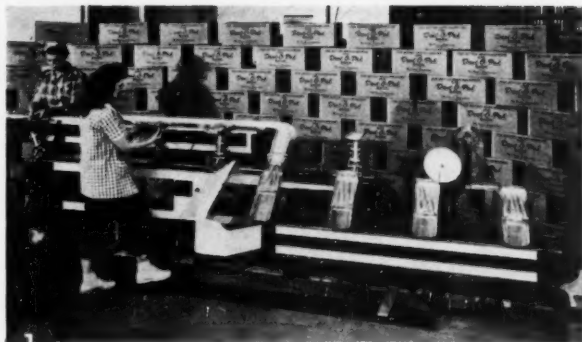
EXTRA!

NEWS!

EXTRA!

NEW DENT-O-MATIC MACHINE Completes "Big 3" of Pre-Packaging!

Presented for the first time at the San Francisco Packaging Exposition, the Dent-O-Matic loading machine is specially designed to complement and complete the economical operation of "Dent-O-Pak" bags. It weighs, fills and automatically stitches, with only two girl operators, 28 bags per minute. It stands up under hard, continuous usage and pays for itself, through increased output, in a short time.

**1.**

Ideal for prepackaging carrots, corn, asparagus, brussels sprouts, celery, cherries, plums, apricots, dates, limes, etc. 16 feet long by approx. 52 inches wide. Each bucket equipped with a scale. Weighing practically automatic.

**2.**

DENT-O-PAK FLAT HEADERS

Head already attached. Open so easily and quickly that they can be machine-filled at several times the speed of the ordinary Pliofilm package. For NEW speed, economy, convenience in pre-packaging, put in your order for Dent-O-Matics Now!

Added to the proved sales-potential of the "visible" package, Dent-O-Pak Glued-on Headers (pat. pending) offer packers the tremendous "plus" of faster filling, more economy in handling--and, a NEW convenience feature for the consumer: The ingenious "handle" header that takes its place with the Coca Cola carrier package as a selling novelty of first order.

**NOW IN LARGE AND
RAPIDLY GROWING
VOLUME USE BY SOME
OF OUR LARGEST
NATIONALLY KNOWN
GROWER PACKERS**

**3.**

DENT-O-PAK HANDLE HEADERS

The ideal package for apples, oranges or potatoes. Here is a real "plus" for your salesmen or brokers to sell -- just the extra touch of convenience that gets women talking -- and BUYING.

The DENTON Corporation

2124 LIVINGSTON STREET, OAKLAND 3, CALIFORNIA • KELLOG 4-5615

SELECTED

FIGS

In covered wagons, the pioneers came to California in search of gold. Others followed the gold seekers and discovered the great wealth of the valley soils and their ability to produce fruits of unequalled variety and excellence.

One of these was George Roeding, who pioneered the development of fig growing in California. In 1890 he found how to produce the finest old-world figs, and named them "Calimyrnas".

The figs in this box are Roeding's selected Calimyrnas, packed by California's oldest exclusive fig packers.

ROEDING FIG CO
Fresno, California

Roeding's



FIGS

UNSULPHURED

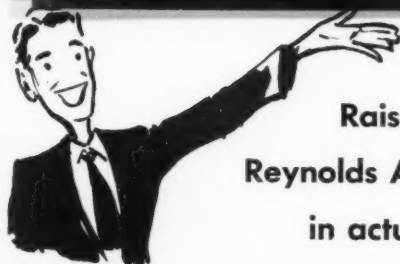
Roeding's

FIGS

These wholesome ready-to-eat figs have no added ingredients, but come to you soft and luscious, flavor sealed in this improved foil-wrapped carton.

Because of their delightful and appealing flavor you will enjoy eating this natural fruit confection. For many and varied uses, write for our free illustrated recipe booklet.

ROEDING FIG CO.
Fresno, California



Raise these tip-ons and see
Reynolds Aluminum Reyseal Overwraps
in actual use on Roeding's Figs.

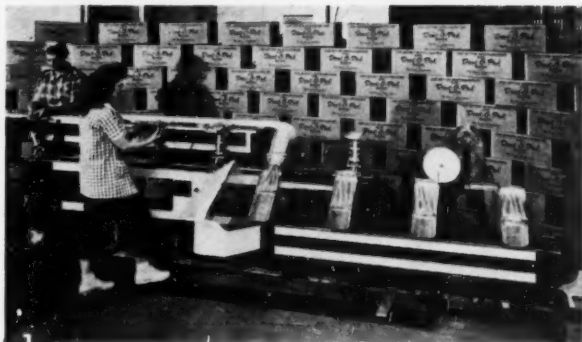


REYNOLDS ALUMINUM

EXTRA! NEWS! EXTRA!

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RAPIDLY GROWING
VOLUME USE BY SOME
OF OUR LARGEST
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The DENTON Corporation

2124 LIVINGSTON STREET, OAKLAND 6, CALIFORNIA • KELLOG 4-5615

SELECTED

FIGS

In Early California days, the Mission Fathers introduced the Black Fig from Spain, and planted them in their mission gardens. Thus was derived the name, "Black Mission" figs.

Today, in the fertile California Valleys, there are thousands of trees bearing this succulent fruit, the descendants of those planted by the California Padres.

The figs in this package are Roeding's finest Black Mission Figs. They are carefully selected for quality and packed by California's oldest exclusive fig packers.

ROEDING FIG CO.
Fresno, California

Roeding's



FIGS

UNSULPHURED

Roeding's

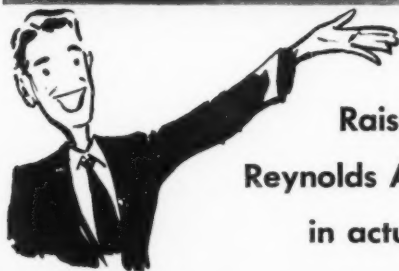
FIGS

These wholesome ready-to-eat figs have no added ingredients, but come to you soft and luscious, flavor sealed in this improved foil-wrapped carton.

Because of their delightful and appealing flavor, you will enjoy eating this natural fruit confection. For many and varied uses, write for our free illustrated recipe booklet.

ROEDING FIG CO.
Fresno, California

Richmond 19, Virginia



Raise these tip-ons and see
Reynolds Aluminum Reyseal Overwraps
in actual use on Roeding's Figs.



REYNOLDS ALUMINUM

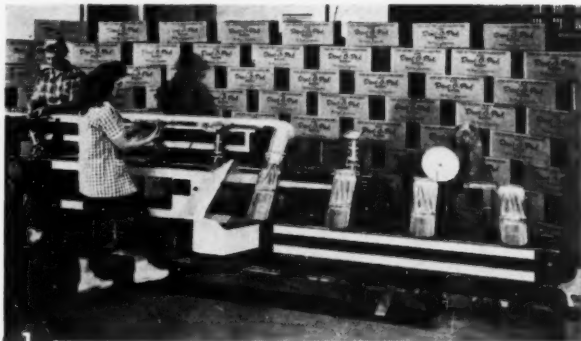
EXTRA!

NEWS!

EXTRA!

NEW DENT-O-MATIC MACHINE Completes "Big 3" of Pre-Packaging!

Presented for the first time at the San Francisco Packaging Exposition, the Dent-O-Matic loading machine is specially designed to complement and complete the economical operation of "Dent-O-Pak" bags. It weighs, fills and automatically stitches, with only two girl operators, 28 bags per minute. It stands up under hard, continuous usage and pays for itself, through increased output, in a short time.



1. Ideal for prepackaging carrots, corn, asparagus, brussels sprouts, celery, cherries, plums, apricots, dates, limes, etc. 16 feet long by approx. 52 inches wide. Each bucket equipped with a scale. Weighing practically automatic.



2.

DENT-O-PAK FLAT HEADERS

Head already attached. Open so easily and quickly that they can be machine-filled at several times the speed of the ordinary Pliofilm package. For NEW speed, economy, convenience in pre-packaging, put in your order for Dent-O-Matics Now!

Added to the proved sales-potential of the "visible" package, Dent-O-Pak Glued-on Headers (pat. pending) offer packers the tremendous "plus" of faster filling, more economy in handling--and a NEW convenience feature for the consumer: The ingenious "handle" header that takes its place with the Coca Cola carrier package as a selling novelty of first order.

**NOW IN LARGE AND
RAPIDLY GROWING
VOLUME USE BY SOME
OF OUR LARGEST
NATIONALLY KNOWN
GROWER PACKERS**



3.

DENT-O-PAK HANDLE HEADERS

The ideal package for apples, oranges or potatoes. Here is a real "plus" for your salesmen or brokers to sell -- just the extra touch of convenience that gets women to talking -- and BUYING.

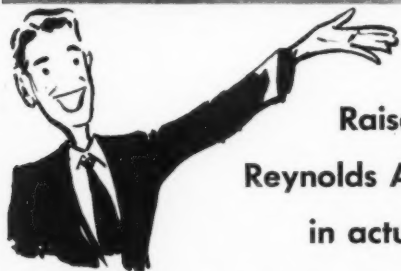
The DENTON Corporation

2124 LIVINGSTON STREET, OAKLAND 6, CALIFORNIA • KELLOG 4-5615



California's oldest exclusive fig packers are proud of everything that contributes to product quality...copy on overwrap calls attention to the foil-wrapped carton that keeps these figs "soft and luscious, flavor sealed." But customers must buy before they can taste quality. And they buy on sight...on the eye-stopper appeal of metallic gleam and rich color. That's the double value of Reynolds Aluminum packaging...superior protection where needed, self-selling magic always. Let us demonstrate right on your own product.

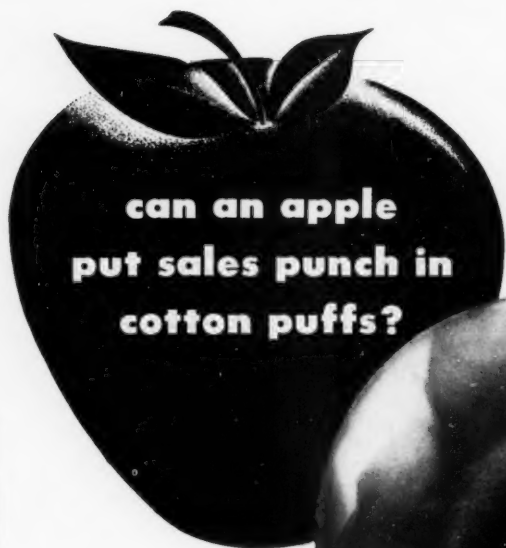
Reynolds Metals Company,
Richmond 19, Virginia



Raise these tip-ons and see
Reynolds Aluminum Reyseal Overwraps
in actual use on Roeding's Figs.



REYNOLDS ALUMINUM



**can an apple
put sales punch in
cotton puffs?**



problem: Victoria-Vogue, Inc. of New York City, wanted packages that would do three things . . . **1st:** show the delicate, varied colors of their cotton-puffs and powder-puffs to best advantage . . . **2nd:** permit shoppers to handle the package without actually handling the merchandise . . . **3rd:** have a definite *sales plus* over throw-away containers.

solution: Columbia designed a family of *double-value* packages that met all specifications. Molded of crystal-clear Polystyrene, the apple illustrated here not only lets the customer *see* the cotton-puffs (without a chance of touching them), but also serves as a desirable candy or cookie jar after the cotton-puffs have been used.

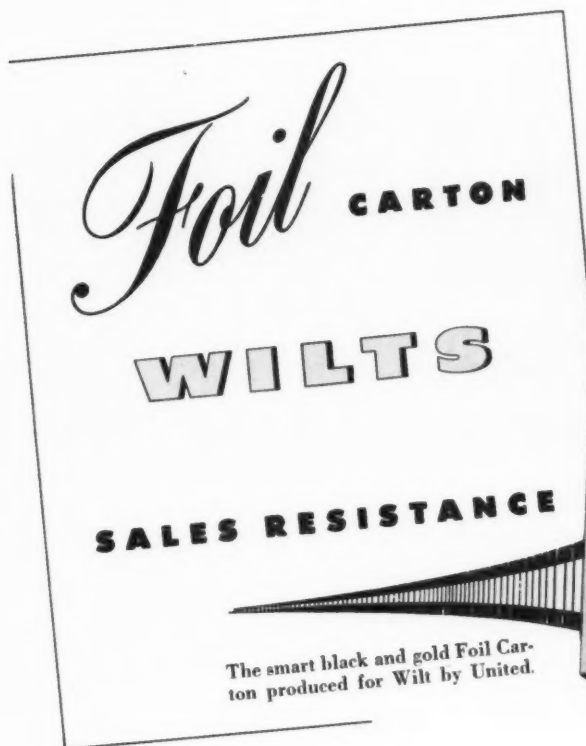
In addition, two powder-puff boxes were designed that also serve as cigarette containers . . . another cotton-puff package becomes a lovely handkerchief or sewing box when the cotton-puffs are removed.

suggestion: It's merchandising ideas like these, plus complete engineering and molding facilities, that have put Columbia far out front in the packaging parade. We'll welcome an opportunity to help put *more sales punch* into *your* packages.



COLUMBIA PROTEKTOSITE COMPANY, INC., CARLSTADT, NEW JERSEY
New York Showrooms: Empire State Building





Like so many products depending on impact at the point of purchase, Wilt too is packaged in eye-catching Foil Cartons. The superior display value of Foil has helped many products get ahead of competition. How about your package? Does it outshine others in shop windows . . . on shelves and counters? Does it stop the shopper's roaming eye, and make the cash register ring? It will if you change to Foil Cartons. Send us your present package for suggestions. No obligation, of course.



UNITED BOARD AND CARTON

P. O. Box 1318 • Syracuse, New York

Board Mills:

Lockport, N. Y.; Thomson, N. Y.; Urbana, O.

Carton Plants:

Victory Mills, N. Y.; Syracuse, N. Y.; Brooklyn, N. Y.; Cohoes, N. Y.; Springfield, O.

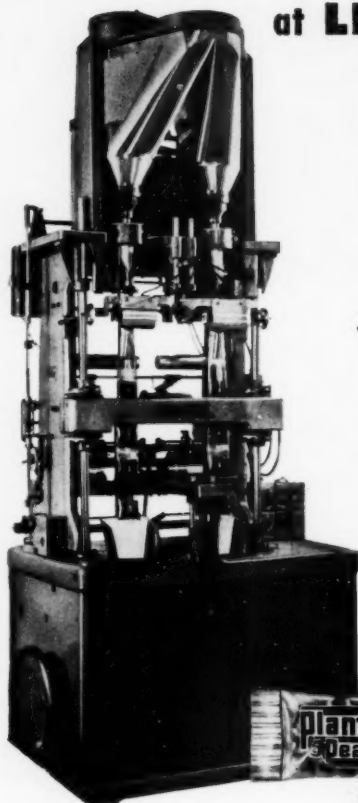
TRANSWRAP

THIS READY-MADE
BAG, HAND-FILLED
Approximate Cost
Labor and Materials
\$7.00 per thousand



THIS AUTOMATIC
TRANSWRAP PACKAGE
Approximate Cost
Labor and Materials
\$3.29 per thousand

AUTOMATICALLY produces a better-selling package
at **LESS** than **HALF THE COST**



TRANSWRAP—industry's most practical and efficient packaging machine—forms, fills, seals and delivers a better-looking, better-selling package for your product...completely automatically.

In cost, the finished filled TRANSWRAP units actually run less than half the price of ready-made empty bags for manual processing. And, because a single operator can handle a whole battery of TRANSWRAP machines, wage savings are phenomenal.

TRANSWRAP is equally efficient for powders, solids, tablets and even liquids. Standard packaging materials which may be used include cellophane, Pliofilm, glassine, roll foil or other suitable heat-sealing materials. Package capacities range up to 80 cubic inches in volume and often may exceed one pound in weight. Custom-engineered adaptations are possible to meet your individual requirements with maximum efficiency.

Model "B" Transwrap with
auger feed. Also adaptable
to Volumetric or liquid feed.
Produces 40 to 75 pkgs. per
minute.

Also Available—
Model "A" Transwrap
For small and unit packages.
(2½" x 6" Max.) Speeds to
150 pkg./min.

WRITE FOR FREE ILLUSTRATED BROCHURE

Manufactured and Sold by
**TRANSPARENT WRAP
MACHINE CORPORATION**

Route 17 and Henry Street, Hasbrouck Heights, New Jersey



SAVES UP TO 60%

by using Bemis TITE-FIT TUBING

This recent letter from a Tite-Fit Tubing customer shows what big savings are realized when this waste-eliminating method is used.

This versatile tubing fits almost any shape and a wide variety of package sizes. One roll may cover many different diameters and lengths without waste.



BEMIS BRO. BAG CO.

Brooklyn 32, New York



Also manufactured by Canadian Bag Co., Ltd., Montreal, and Ontario Bag Company, Port Colborne, Ontario.

Thermoid

AUTOMOTIVE - INDUSTRIAL - OIL FIELD - TEXTILE PRODUCTS

Company

TRENTON - NEW JERSEY - USA

Bemis Brothers Bag Company
Second Avenue and 51st Street
Brooklyn 32, New York

Gentlemen:

We have used Tite-Fit Tubing since its inception over 10 years ago. Accurate time study figures show our savings in labor costs on regular packaging operations to be as high as 33% to 60%.

In addition, Tite-Fit Tubing has also provided the superior covering that is required for our export packaging. We are particularly pleased by the favorable comment we receive from our customers on the neat, secure bales in which our merchandise is shipped.

Very truly yours,

Walter R. Hoffmann

Traffic Manager,
Thermoid Company

Perhaps you will find equally large savings with Tite-Fit Tubing. It's worth investigating. Get the facts. Mail the coupon now.

MAIL COUPON NOW

BEMIS BRO. BAG CO., 5130 Second Ave., Brooklyn, N.Y.

- ☐ Send descriptive folder on TITE-FIT TUBING
☐ Send sample. Our packages are approximately _____ inches in circumference. (Please specify).

Name _____

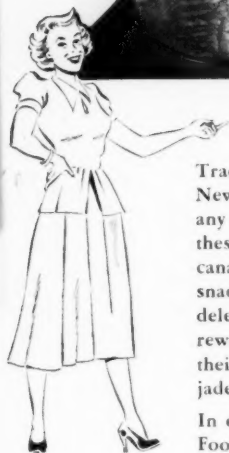
Firm _____

Street _____

City _____ Zone _____ State _____

Good luck

any day of the year...



Tradition has it that eating herring on New Year's Eve brings good luck. But any day is your lucky day when you have these Vita Brand herring delicacies for canapes, with dinner or as a late evening snack. The taste thrill you get from these delectable herring fillets and snacks is a reward in itself. They have a flavor all their own. Just the thing to perk up jaded appetites.

In coming to Crown for closures, Vita Food Products, Inc., of New York, has

made sure that these products are sealed dependably and efficiently.

The smartly decorated caps plus the product itself make an attractive shelf display.

No matter what product you pack, come to Crown for scientific research service on your sealing problems . . . and, too, our artists will design your closure decoration. These services are free. Crown Cork and Seal Co., Baltimore 3, Md. *World's Largest Makers of Metal Closures.*

Approved by Millions of Housewives

CROWN CLOSURES



Chamkote

The Choice for Box Wraps

For quality and appearance, use Champion's
Chamkote on your next Box Wrap job. Avail-
able in four distinctive embossed finishes.

*Champion's new packaging system
is a challenge to*

Champion

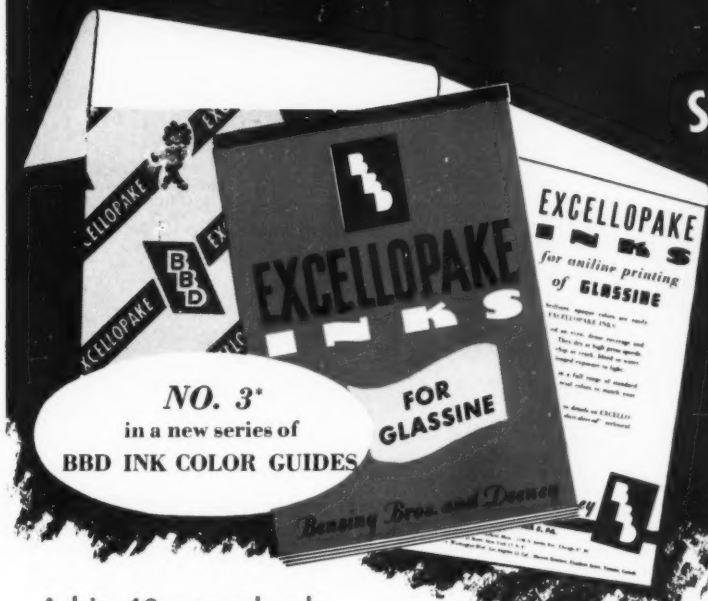
THE CHAMPION PAPER AND FIBRE CO.

HAMILTON, OHIO

[This is Chamkote Box Wrap, Alligator Embossed, 30 lb.]



IF YOU PRINT GLASSINE
OR HAVE IT PRINTED FOR YOU...



NO. 3*
in a new series of
BBD INK COLOR GUIDES

**FOR
GLASSINE**

Bensing Bros. and Deeney

Send for this
FREE new
**ANILINE INK
COLOR
GUIDE**

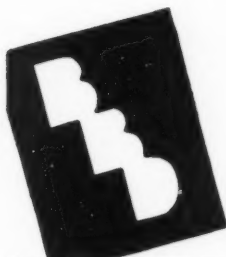
A big 40-page book
showing different standard
aniline ink colors—including
gold and silver—on both trans-
parent and opaque glassine.

You will find this new book extremely helpful
in planning the printing of your next glassine
job. Send for your copy today—and, while
you're at it, why not ask for a "shirt-sleeved"
BBD technical representative to call. He can
show you how to get cleaner, more brilliant
printing results on glassine with EXCELLO-
PAKE INK.

* Also recently issued
and available free
on request:

No. 1
HYDROTONE INKS
for Kraft, Tissue, and
other absorbent
stocks.

No. 2
EXCELLOPAKE INKS
for Cellophane.



Bensing Bros.

and Deeney

LARGEST MANUFACTURERS OF ANILINE INK IN THE WORLD

PHILADELPHIA • CHICAGO • WAKEFIELD, MASS. • LOS ANGELES

Mail this coupon for your **FREE** book

BENSING BROS. and DEENEY
401 N. Broad Street, Philadelphia 8, Pa.

Please send me a copy of the new
COLOR GUIDE to EXCELLOPAKE INKS
for GLASSINE

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

For product preservation, Duryea's bird seed is packaged for resale in attractively colored, spot printed duplex bags of glassine and kraft — which also serve as a unit of measure for easy factory filling.



**bird seed...
bandages...or
"3 CORNERED PANTS"**

*There's a **THILCO BAG** to meet your requirement for a protective product enclosure—*

Reading down: For product identification — readily recognized by automotive dealers everywhere, Stanco and Sterling parts are packaged in specially designed, over-all printed kraft bags which also provide unit protection.

Simplified packaging of a "hard to wrap" product is best demonstrated by Bauer & Black's Curity products. Here, bags provide sanitary, protective, easy packaging of small bulk items such as bandages and dressings.

Retail store identity and prestige are quickly established when packaging combines "matching" bags and wrappings — such as this gaily printed color ensemble for Max Adler Co.



Extra large bags, too — Lyon Metal Products Co. bakes their ironing board and white covering pads for protection from dirt, and good point-of-sale product identity.



Especially produced for use when traveling, Dy-Dee duplex bags made from glassine and MG kraft provide protection from soiled diaper moisture and offensive odors. Spot printing displays the donor's compliments.

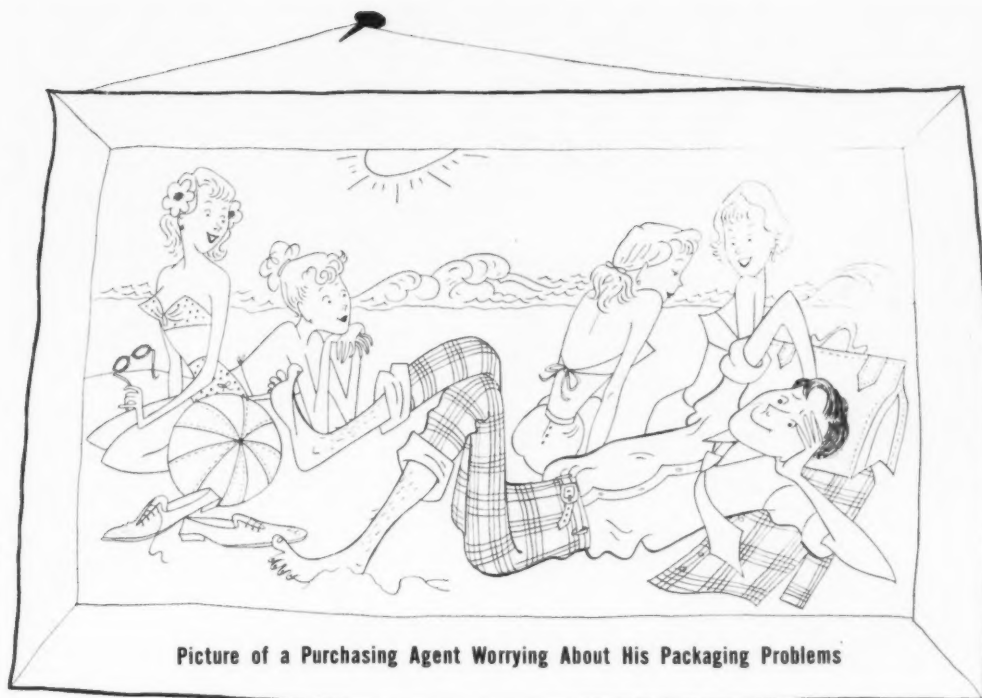


There's no limit to the variety of specialty bags we produce in our modern bag mill — nor the list of seemingly inconceivable products now more economically packaged with bags than by previous methods. Versatility is our production keynote, and the wide range of base papers manufactured in our own mills permits bag conversion of numerous styles and types. Included, are bags of Greaseproof, Amber Glassine, MG and MF Kraft, Waxed Thermo-plastics, and Water-Proof papers. All can be decorated with colorful printing for name or product identification — and for matching with other wrappings. We'll be glad to lend a hand with suggestions for bag-packaging your products. Get in touch with us today.

THILCO
Functional Papers

THILMANY PAPER CO. • KAUKAUNA • WIS.

ASPHALT WATERPROOFS • GLASSINES & GREASEPROOFS • BROWN & WHITE • TRANSPARENT • WAX PAPER • SPECIALLY DESIGNED • COTTON BAGS



EXPLANATION:

Aluminum Tubes by Sun Tube

Got a tough-to-solve packaging problem? Plenty of purchasing agents find Sun Tube's got the right answers. Take aluminum tubes, for example:



**Only Sun Tubes give you
all these advantages:**

'Satin-finish' shoulders — with a handsome soft luster. Unmarred by die marks or ridges. A Sun Tube exclusive!

Crisp reproduction — any design or color combination.

Uniformity — exact dimensions every time. Cuts rejects and downtime.

Cleanliness — no lint, no shavings. Clean as your own product.

Flexibility and durability — because of special Sun Tube processing.

Cost — no more than other quality tubes!

All the facts about Sun Tubes—aluminum or lead and tin, standard size or one-shot Unitainers—are yours for the asking. Get our free, helpful Tube Handbook just by phoning or writing our home office—Sun Tube Corporation, 131 Long Avenue, Hillside, N. J.—or our nearest representative:

Chicago 26, Ill. . . . James L. Coffield, Jr., 7720 N. Sheridan Rd.
St. Louis 1, Mo. . . . M. P. Yates, Arcade Building
Cincinnati 3, Ohio Ralph H. Auch, 3449 Custer Road
Seattle 4, Wash. King & Anderson, 1016 First Ave. South
San Francisco 3, Calif. . . . King & Anderson
Los Angeles 27, Calif. . . King & Anderson, 1001 No. Vermont Ave.

Detroit 2, Mich. Joseph P. Giroux, 2970 West Grand Blvd.
St. Paul 1, Minn. Alexander Seymour, 1411 Pioneer Bldg.
Dallas 2, Tex. R. P. Anderson Co., 317 Texas Bank Bldg.
Portland 1, Ore. King & Anderson, Foot S. W. Gibbs St.
Western Merchandise Mart, 1355 Market Street



Five examples of a policy

Here are five successful brands of aluminum household foil.

It is Permanente Metals' policy to help establish aluminum foil customers such as these... not only through consistently dependable service, quality foil, prompt deliveries... but also through technical assistance.

To help realize this aim, Permanente Metals produces Kaiser Aluminum Foil in a wide range of sizes—widths from $\frac{3}{8}$ of an inch to $30\frac{1}{2}$ inches... thicknesses from .00025" to .006".

We believe we can be of help to you.

Simply call any of Permanente Products' nationwide sales offices—and you'll get action.

Permanente Metals

PRODUCER OF

Kaiser Aluminum Foil

SOLD BY PERMANENTE PRODUCTS COMPANY, KAISER BUILDING, OAKLAND 12, CALIF. . . . WITH OFFICES IN:
Atlanta • Boston • Chicago • Cincinnati • Cleveland • Dallas • Denver • Detroit • Houston • Indianapolis • Kansas City • Los Angeles
Milwaukee • Minneapolis • New York • Oakland • Philadelphia • Portland, Ore. • Seattle • Spokane • St. Louis • Wichita

Toast to an Industry



October brings us **National Wine Week**. But, thanks to the progressiveness of the American vintners, every week is **National Wine Week** and every day is **National Wine Day**.

For enlightened public relations, quality of product, and moderate prices have made wines a daily part of gracious living.

We of **HAZEL-ATLAS** are proud of the small part we are privileged to play in your production.

HAZEL-ATLAS GLASS COMPANY

Wheeling, West Virginia



Wine

Another Example

OF GARDNER PACKAGING INGENUITY...



A carton with folding "Shoulder Pads"

... to protect the product ends in transit, to make
a smart display in the store

Most packaging problems come in pairs. Shelf appeal? Certainly. A carton must have it. (And *Coated Lithwite's* whiter, brighter surface gives this TRIMZ package a big, eye-catching extra!) Protection? A carton must provide that, too. And for a product like a heavy roll of wallpaper that may bruise or tear easily at the ends, *providing* practical protec-

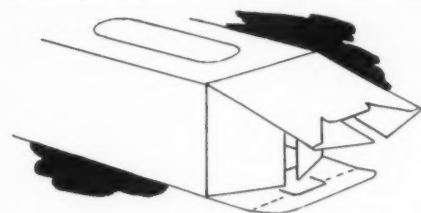
tion can be a real problem. It's the kind of problem, however, Gardner likes to tackle.

Maybe we can add extra protection, extra sales appeal to YOUR package

Do you have a product that's hard to package? An old product that needs new point-of-sale vitality? Or a *new* product that needs a new packaging idea? Get in touch with Gardner. We'll be glad to put our experience and ingenuity to work on it. No obligation, of course.

**MAKE MORE EYES REACH
FOR YOUR PRODUCT IN CARTONS OF
COATED LITHWITE***

United Wallpaper takes full advantage of the quality impression, the extra eye-appeal of Coated Lithwite, the quality clay-coated board that's whiter, brighter. Colors hold up brilliantly on Coated Lithwite . . . pictures reproduce with true-to-life realism. Rub-resisting. Fade-resisting. Both cartons of Coated Lithwite and Coated Lithwite Paperboard are available.



Special Gardner end closure gives "shoulder pad" strength and rigidity to protect heavy rolls of famous ready-pasted TRIMZ wallpaper during shipping . . . transparent window permits easy pattern and color selection without unnecessary handling.

THE GARDNER BOARD AND CARTON CO.

Formerly The Gardner-Richardson Co.

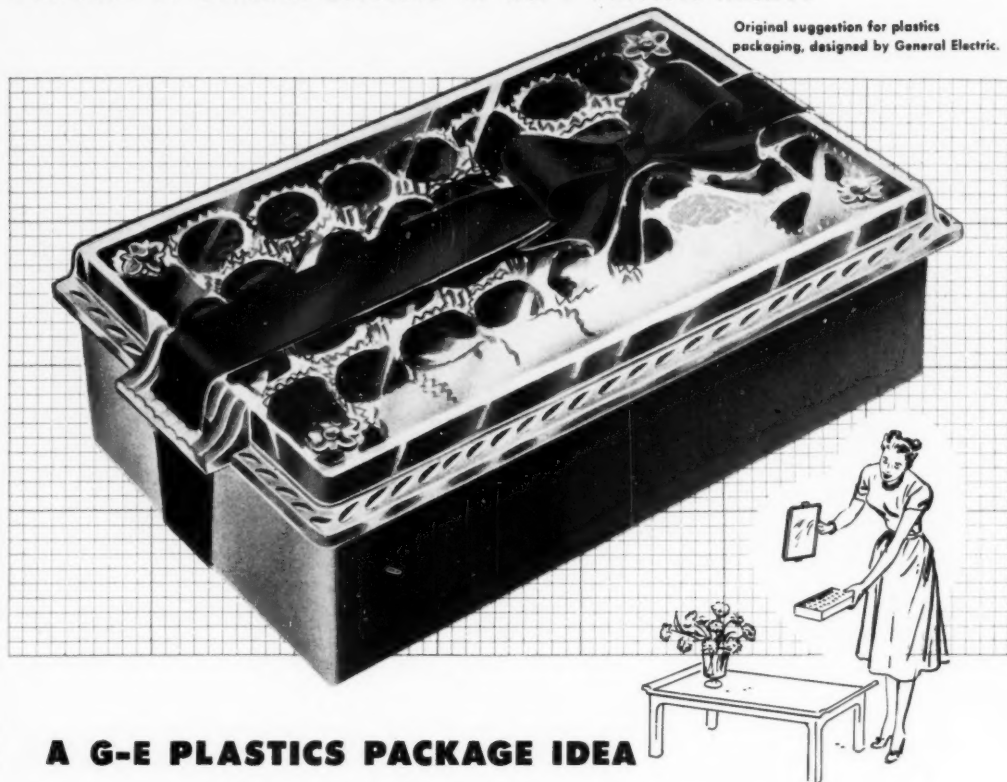
Manufacturers of Folding Cartons and Boxboard, Middletown, Ohio

*Reg. U. S. Pat. Off.

Sales Offices in Boston, Chicago, Cleveland, New York, Philadelphia, Pittsburgh, St. Louis

DESIGNED BY GENERAL ELECTRIC AT NO. 1 PLASTICS AVENUE

Original suggestion for plastics packaging, designed by General Electric.



A G-E PLASTICS PACKAGE IDEA

with a transparent purpose

The transparent plastics tray-top of this chocolate box will transform candy or fancy food boxes into useful gift items.

This decorative yet functional top can be used on ordinary candy boxes, giving them that *extra* appeal that turns prospects into customers. Turn the top over, and it's a lovely tray for serving the contents of the package. The raised flowers in the corners provide feet for the tray and allow the boxes to be stacked without crushing the ribbon bows.

General Electric carries no stock of these tray-tops at

No. 1 Plastics Avenue. It's just one of many G-E sales-promoting *ideas*, each one ready to be backed by the facilities of General Electric's *complete plastics service*. This service includes engineering and custom molding—everything that's necessary to help you to improve *your* packaging and boost sales.

Take advantage of this unique General Electric service! To discuss the new packaging of an established product or plans for launching a new one, just write to Section 2-10, Plastics Division, Chemical Department, General Electric Co., 1 Plastics Ave., Pittsfield, Mass.

You can put your confidence in—

GENERAL  ELECTRIC

CD4P-B4

EVERYTHING IN PLASTICS

WIRZ Tubes help you meet
demands of modern merchandising
—protection—convenience—sales appeal



A case in point is the PRELL Shampoo . . .

a completely adequate sales package that is making an irresistible appeal to women (and men!) all over America. This Prell Tube performs the three important functions of every good container — it protects — it adds convenience — it increases sales appeal of the product. Wirz is proud to have cooperated with P & C's engineers in developing the design as well as in the production of Prell Tubes. Our staff will welcome an opportunity to work with you on your packaging projects. Wire or phone us



Fourth & Cole Sts. • CHESTER, PA.

New York 17, N. Y.
50 E. 42nd St.

Chicago 4, Ill.
80 E. Jackson Blvd.

Memphis 2, Tenn.
Wurzberg Bros.

Havana, Cuba
Roberto Ortiz Planes

Los Angeles 14, Calif.
1709 W. Eighth Street

Export Division: . . 735 Drexel Building — Philadelphia 6, Pennsylvania

Collapsible Metal Tubes • Lacquer Linings • Wax Linings • Westite Closures • Soft Metal Tubing • Household Can Spouts • Applicator Pipes • Compression Molding

UNIFORM COMPONENTS PLAY A BIG PART IN PACKAGING SALES AND PROFITS!

"Commerce"

MICRIS WAXES
SERSEAL
Polymer-resin compounds
PETROLATUMS
PARAFFIN WAXES

All Commerce products are manufactured under rigid quality control and are guaranteed to be absolutely uniform. Once a manufacturer uses a Commerce product as a component, his coating, laminating or heat-sealing problems are solved. That's why Commerce customers are "repeat" customers. Let Commerce answer YOUR packaging problem with the following Commerce products:

"Commerce"
MICRIS

MICRIS — The trade name for a group of pure, straight-run, non-compounded, micro-crystalline waxes. All MICRIS waxes have passed the "experimental" stage and are now being supplied regularly to many leading manufacturers and converters throughout the world for the production of up-to-the-minute packaging where the finest micro-crystalline waxes are required.

SERSEAL — A series of ultramodern polymer-resin compounds and dispersions designed for highest quality heat-seal coating and laminating. The SERSEAL'S are a packaging "must" in the food industry. They are noted for their complete lack of surface tack, good tear resistance, low moisture vapor transmission and flexibility at low temperatures.

"Commerce"
SERSEAL

"Commerce"
PETROLATUMS

PETROLATUMS — U.S.P. and industrial grades of Commerce brand petrolatums are used for impregnating millions of rolls of food wrapping paper and for waterproofing cartons and liners.

PARAFFINS — Crystalline paraffine waxes can be supplied at all melting points in slack, crude scale, semi-refined and fully refined grades. They are rigidly controlled to assure uniform quality and are used extensively for impregnating, coating and laminating paper, cartons and paper milk bottles.

"Commerce"
PARAFFINS

CONSULT OUR LABORATORY ON ANY PROBLEM OF PAPER TREATMENT!

Write for our new data sheets

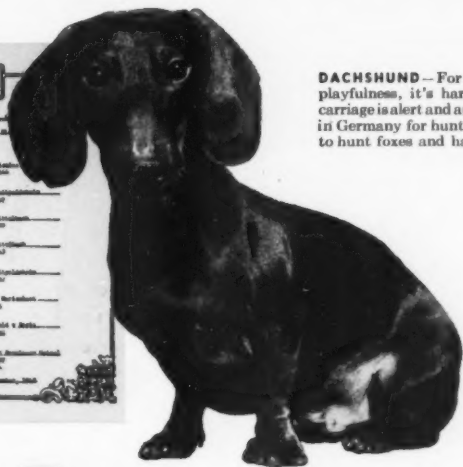
Samples furnished upon request

COMMERCE OIL CORPORATION

WARREN, PENNSYLVANIA

NEW YORK OFFICE: 111 EAST 56TH STREET — NEW YORK 22, N. Y.

A Pedigree is a Promise of Quality



DACHSHUND—For affection, responsiveness and playfulness, it's hard to beat a dachshund. His carriage is alert and audacious. Originally developed in Germany for hunting badger, he can be trained to hunt foxes and hare, and track wounded deer.

In Boxes, Too



MAKERS of famous national brand products look for consistent quality, consistent service and fair price from their box suppliers. That's why Colgate-Palmolive-Peet ship Vel, the household detergent used by countless housewives, in Union Corrugated Containers . . . the boxes with a pedigree.

75 years of leadership in flexible packaging goes into Union boxes. Every step in the making, from timber to finished box, is quality-controlled by one management in America's largest pulp-to-container plant.

Tremendous forest resources, four modern box plants and five of the nine largest paper machines in the world make Union a dependable container source for any large volume shipper.

That's why, every month, more makers of famous brand products ship in Union boxes.

UNION Corrugated Containers UNION BAG & Paper Corporation

Principal Offices: WOOLWORTH BLDG., NEW YORK 7, N. Y.

Corrugated Container Plants: SAVANNAH, GEORGIA • CHICAGO, ILLINOIS • TRENTON, NEW JERSEY

PLASTIC PACKAGES *by*

VLCHEK

**HELP SELL
MORE PRODUCTS
PROFITABLY**



Upper left to lower right (1) Typical compartment box; (2) Package for Production Screw and Nut Co., Inc., Chicago, Ill.; (3) Humidor for Clover Leaf Plastic Co., St. Louis, Mo.; (4) Drill Pack for Whitman and Barnes, Div. of United Drill and Tool Corp., Plymouth, Mich.; (5) Wrench Box for Western Auto Supply Co., Kansas City, Mo.; (6) Line Box for Newton Line Co., Inc., Homer, N.Y.

• You can judge for yourself how the sales appeal of merchandise is enhanced when displayed in these flawlessly molded transparent boxes.

Customers buy package as well as product—the boxes have many “after-uses.”

Of polystyrene, the boxes are odor resistant and practically non-absorbent . . . satisfactory for home refrigeration, quick freezing and use in normal temperatures. Also available in other materials. Rigidly constructed, they withstand moderately rough handling.

Molded in different compartment arrangements and sizes. The more popular numbers are carried in stock for immediate shipment; specials—involving variations in shape, interior design, hinge design, etc. can be engineered to meet exactly your specific needs.

Write for prices telling us the kind of merchandise to be carried so that we can write you fully.

STANDARD SIZES

10-3/4"—6.4" —1-3/4"
8-1/4"—4-1/4"—1-1/4"
7-1/2"—4-1/2"—1-1/2"
7" —3-1/2"—1-3/16"
6-1/4"—4" —1-1/2"
4-1/2"—2-3/4"—1"

A FEW OF THE COMPARTMENT ARRANGEMENTS
BEING SUPPLIED



PLASTICS DIVISION
**The VLCHEK
TOOL COMPANY**
3001 EAST 87th STREET • CLEVELAND 4, OHIO



Another Popular Carr-Lowrey Model

Now Available in a Complete Range of Sizes

This square stock bottle, Style No. 424, is one of the most popular items in the extensive Carr-Lowrey line because it meets the requirements of modern packaging so well. It has the beauty of line that compares favorably with containers which cost far more. It is economical to use. The light weight construction cuts shipping costs and the square shape is ideal for fast, safe packing. The unobstructed sides provide four clear panels which give exceptional flexibility for a variety of label



treatments. Now, that this bottle is available in a full range of sizes from 1 dram to 16 ozs., its use is extended, not only to a wider variety of products, but also to the uniform packaging of individual products in any size required.

Your Carr-Lowrey Representative will give you complete information about this bottle or it will be supplied, on request, by our office nearest you.



Factory and Main Office: Baltimore 3, Md. • New York Office: 40 W. Fortieth St. • Chicago Office: 1502 Merchandise Mart

OCTOBER 1949

35



Artist—Mack Stanley, native of Texas

TEXAS—annual purchases: \$5½ billion—mostly packaged.

CONTAINER CORPORATION OF AMERICA





Pliolite S-7 Coating under test.
Note failure of paper before seal gives way. Inch-wide strips sealed to each other at 260-270° F. require a force of 250-400 g for separation.

For "tearing" heat seals

use

PLIOLITE S-7

H EAT seals for coated and uncoated papers, aluminum foils, kraft, sulphite and glassines are stronger when the coatings used are made with **Pliolite S-7**. If seals are made at the recommended temperature of 260-270° F., the paper will tear before the seal ruptures.

Coatings made with **Pliolite S-7**

also have excellent resistance to WVT (water vapor transfer) whether creased or uncreased, offer strong adhesion to a wide range of papers, good "slip" and "non-blocking" characteristics and excellent resistance to aging.

Pliolite S-7 is available in two solutions—**Pliolite S-7-30**—a simple 30% solution in toluene—

and **Pliolite S-7 Coating 1000-F-30** (PC 1000-F-30), an already compounded 30% solids solution in toluene. **Pliolite S-7-30** is the resin in a form for convenient modification and compounding; the other form is received ready for use. For full details and sample, write:

**Goodyear, Chemical Division
Akron 16, Ohio**

We think you'll like "THE GREATEST STORY EVER TOLD"—Every Sunday—ABC Network



GOOD YEAR

Pliolite—T.M. The Goodyear Tire & Rubber Company

★ ★ NEW Stoway ★ ★ PACKAGE PARADE!

*Proven, consumer
acceptance of the
STOWAY PLASTIC
CONTAINERS
assures your product
of tested selling appeal.*

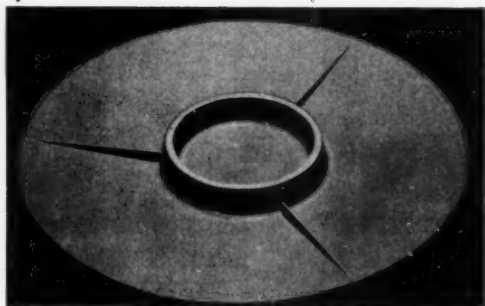


BABY STOWAY—5 oz.

JUNIOR STOWAY—8 oz.



UTILITY DISHES



SERVICE DISH

STOWAY PLASTIC CONTAINERS are adaptable to many kinds of products. Each container is made of odorless, tasteless, chip-proof STYRON and will withstand heat to 160 degrees F—cold to -40 degrees F. Each container has been designed for appearance, utility and durability.

No. 2400 Baby Stoway—5 oz. capacity—twist-seal lid—3 transparent colors.

No. 2600 Junior Stoway—8 oz. capacity—twist-seal lid—3 transparent colors.

No. 2800 Senior Stoway—16 oz. capacity—twist-seal lid—3 transparent colors.

No. 600 Utility Dish—16 oz. capacity—4" x 4" x 2½"—tight seal lid—3 transparent colors.

No. 1200 Utility Dish—32 oz. capacity—8" x 4" x 2½"—tight seal lid—3 transparent colors.

No. 1800 Service Dish—14" diameter—1½" depth—lightweight—5 opaque colors and frosted white.

STOWAY OFFERS LOW COST—SALES BUILDING—CONSUMER ACCEPTED PACKAGES WITH A PLUS APPEAL OF HOUSEHOLD UTILITY!

T.M. *

A PRODUCT ATTRACTIVELY PACKAGED IS
ALREADY HALF SOLD

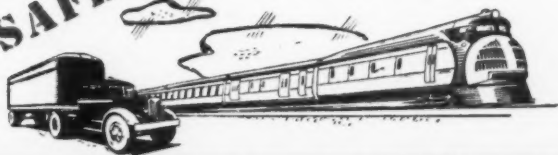
Wire or write for detailed information and prices.

**SOUTHERN CALIFORNIA
PLASTIC COMPANY**

1805 FLOWER ST. • GLENDALE • CALIFORNIA

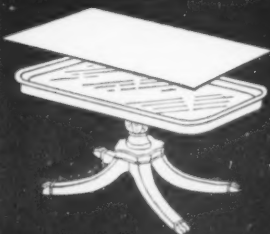


"Engineered for SAFE-ECONOMICAL Travel"

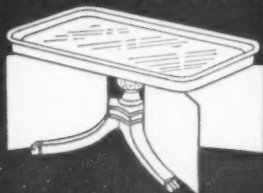


Packaging a Duncan
Phyfe coffee table

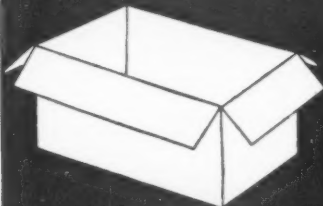
1. Top & Glass Protector



2. Stur-di Test Suspension



3. The Box



UP TOP, THIS SIDE UP UP
FURNITURE
FRAGILE, HANDLE WITH CARE

Precious
NEW FURNITURE
FOR YOUR CUSTOMERS

PACKAGED IN
OLD DOMINION
"Engineered for Travel"
PACKAGES



THE PRIZE WINNING PACKAGE

Look For...



OLD DOMINION

"Engineered For
Travel"

Box Company Inc.

CHARLOTTE, N. CAROLINA

Eight plants Throughout The South Making Every Type of Paper and Fiberboard
Package, Set-Up, Canister, Corrugated, Folding, Visi-Tainer Standard Line

IT'S ALL IN THE BAG!



From these strategically-located Betner Bag plants comes a complete food packaging service for all the U.S.A.

Pinpointed for service to food processors everywhere... that's the big idea behind the locating of these Betner Better Bag plants. Where do you have your business? What kind of bag do you need for your product? Betner has it... and can get it to you quickly.

Backing up our idea of what a complete bag service should be is a widely-flung sales organization, one or more members of which are near you. Betner Bags are, in effect, as close to you as your classified directory.

Your product will GO safely in one of these types of bag

Coffee	Flour
Sugar	Potato chip
	Prepared mix
	Gelatin dessert
	Specialties
	And Many Others

Betner bags are "proofed" against...

moisture-vapor	grease
water	insects
	sifting

Many Betner bags are THERMOSEAL[®]-ed

This is our patented, heat-sealed closure which gives up to 200% greater protection.

*Trade Mark Reg. U. S. Pat. Off.

Benj C Betner Co **DEVON, PA.**

CAMP BETNER CORP., Richmond, Va.; BENJ. C. BETNER CO. of WISCONSIN, Appleton, Wisconsin; SOUTHERN PACKAGING CORPORATION, Affiliate of Benj. C. Betner Co., High Point, N.C.; BENJ. C. BETNER CO., Paris, Texas; BENJ. C. BETNER CO. of CALIFORNIA, Los Angeles, California.

A complete bag service—from idea to finished bag to machinery for closing coffee bags and filling and closing liner bags for cartons.



*"In special dispensing bottle"—This phrase helps swing her to your brand.
Bottle illustrated is a 5-ounce oval No. A-7179 with Empress closure.*

She wants style plus convenience — You want more sales DURAGLAS BOTTLES SATISFY BOTH!

Give her an extra reason for buying and your reward is extra sales!

Take the Duraglas bottle pictured. It gives a toiletry preparation like hair oil the added selling point of convenient drop by drop dispensing.

It's typical of our more than 1400 different drug, chemical and toiletry stock-mold Duraglas containers. Each one is functioneered for high consumer sales appeal . . . low original cost . . . top efficiency on your filling line.

Everything you need—bottles, closures, cases, expert designers and engineers—are at this single source of packaging satisfaction, Owens-Illinois. Let's discuss your needs. A fully-staffed branch office is near you. Prompt service.

Duraglas Bottles are Protectors of Quality

TRADE MARK REG. U.S. PAT. OFF.

OWENS-ILLINOIS GLASS COMPANY • TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES



"RED GOLD III"

A copy of this lithographic reproduction,
suitable for framing, is yours—upon
written request to Stecher-Traung
Lithograph Corporation, Rochester 7, N. Y.

Lithography by **STECHE-TRAUNG**

It's easy to spot a thoroughbred—the quality strain is immediately apparent. That's why more and more of America's outstanding merchandisers are now using "Lithography by Stecher-Traung." We honestly believe you owe it to yourself, your company, your stockholders, to investigate the point-winning characteristics of Stecher-Traung craftsmanship and economy. Let us work with you on your FULL Color advertising literature, point-of-sale material and packaging requirements. We are able and eager to inject prestige and dynamic power into your next promotion—with FULL Color lithography that *sells!*

SPECIALISTS IN FULL COLOR—Advertising Material • Labels • Box Wraps • Greeting Cards
Seed Packets • Folding Boxes • Merchandise Envelopes and Cards

STECHE-TRAUNG LITHOGRAPH CORPORATION

Rochester 7, New York • San Francisco 11, California

Branch Offices: Baltimore • Boston • Chicago • Columbus • Harlingen • Jacksonville • Los Angeles

Macon • New York • Oakland • Philadelphia • Portland • Sacramento • St. Louis • Seattle

Special New York Sales Associates—Rode & Brand

POLYETHYLENE FILM for PACKAGING

from the West Coast's
only producer



Pacific Coast packagers cheer polyethylene's many merits for packaging. And they applaud, too, the quality and service they get from Extruders, Inc.

The sole extruder of this packaging wonder-film on the West Coast, Extruders, Inc. supplies layflat and gusseted polyethylene tubing and flat polyethylene film in standard widths, and in special widths, thicknesses and colors on order.

Widths
Thicknesses
Shapes

3" to 54"
1½ to 8 mils
layflat tubing
gusseted tubing
flat film (single thickness)

clear or colored, opaque or transparent

Polyethylene is completely tasteless, moisture-proof, acid resistant and unaffected by dirt, grease and other common contaminants. In the forms supplied by Extruders, Inc., it can easily be fabricated into attractive, product-protecting bags, wraps and package liners.

OTHER FILMS

Extruders, Inc. is the prime West Coast source of supply for extruded packaging films made of vinyl, acrylonitrile vinyls and vinyl polymers.

Standard Sizes Stocked for Immediate Shipment
Write For Price List Now

For simplified fabricating into —



EXTRUDERS, INC.

8509-15 Higuera Street Culver City, Calif.

Ever since the Gibson Girl



...quality products have sold in fine
Rowell set-up boxes.



...and today, just as 50 years ago, the fresh,
clean-cut line and expert craftsmanship and
color printing of a Rowell container provides
the eye compelling, desire creating combination
that leads to sales and repeat sales.

E. N. Rowell Co. Inc.
Manufacturers of Fine Paper Boxes
BATAVIA, N. Y.



AFRICAN ELEPHANT *

**PROTECTION
AND**

Beauty



MUTE SWAN **



PAPERS

For The FOOD INDUSTRY

The primary job of any paper used to wrap foods or line boxes and cartons is to protect its contents from dirt, rough handling, loss in color, flavor or weight. On the success of this protection rests the food processor's reputation . . . and profits.

Thousands of food processors in the United States look to KVP, with its dozens of highly specialized papers, to provide this security.

They also look to KVP artists and printers to provide attractive, sales-compelling designs and printing.

Protection and beauty, all in one package . . . that is the KVP story.

*No one except maybe another elephant ever accused old *Loxodonta africana* of being beautiful. But his great size and strength make him a symbol of power and protection.

INDUSTRIES SERVED

BAKING

Bread - Cracker
Cereal

MEAT

Packing - Locker
Retail

DAIRY

Butter - Cream - Cheese
Ice Cream - Milk

FISH - FRUIT - FROZEN FOODS

POULTRY - SHORTENING
VEGETABLE

**The mute swan, *Cygnus olor*, is no slouch when it comes to protecting his nest and young, but his chief asset is his well deserved fame for grace and beauty.

Kalamazoo Vegetable Parchment Company

PARCHMENT . MICHIGAN

ASSOCIATED COMPANIES: KALAMAZOO VEGETABLE PARCHMENT CO., DEVON, PENNA.
KVP COMPANY OF TEXAS, HOUSTON, TEXAS
HARVEY PAPER PRODUCTS CO., STURGIS, MICHIGAN
IN CANADA: THE KVP COMPANY LIMITED, ESPANOLA, ONTARIO
APPLEFORD PAPER PRODUCTS LIMITED, HAMILTON, ONTARIO - MONTREAL, QUEBEC



Every good manufacturer, with justifiable pride of craftsmanship, believes that his product is the best that research, skill and modern production facilities can turn out. But, without proper packaging, without suitable display-design and choice of colors that are crisp and clean, the sale of the finest commodity may be retarded. Protect your investment as well as your package by selecting the printing ink that meets your particular requirements.

Check the inks listed below and note the variety available for different packaging techniques:—

HYDRY — moisture-setting ink developed especially for food cartons and labels.

HARD-TEX — for lithographic application to cans, collapsible tubes and metal containers.

SILVER SHEEN and GOLD SHEEN — produce effects simulating metal surfaces, such as aluminum, copper, bronze and silver.

GLOSTONE and SUVENEER — especially suitable for labels, wrappers and cartons likely to be subjected to considerable handling.

ANILINE and ROTOGRAVURE inks for long-run printing of labels, bread wrappers, cellophane bags, foil wraps, etc.

TEXTILE inks for printing on fabric bags used in shipping sugar, flour, cement, and other loose products.

Let us help you with that package-printing problem. Our office nearest you is at your service for complete information on ink and color.

GENERAL PRINTING INK COMPANY DIVISION
10th STREET & 44th AVENUE • LONG ISLAND CITY 1, N. Y.

OFFICES IN PRINCIPAL CITIES

GEO. H. MORRILL CO. • SIGMUND ULLMAN COMPANY • FUCHS & LANG MANUFACTURING COMPANY
 EAGLE PRINTING INK COMPANY • AMERICAN PRINTING INK COMPANY • E. J. KELLY COMPANY
 GENERAL PRINTING INK CORPORATION OF CANADA LIMITED



SHOW US WHAT YOU HAVE TO SELL...

Building selling packages is our business. We can make it a profitable part of your business, just as we have for literally hundreds of products, selling millions of units every day.

Cellophane and other films, foils, papers and laminations provide the basic materials. Vivid, realistic

pictures in natural color create interest, desire, sales. Strong brand identification and remembrance-value combine with these to produce protective packages with that personality which pushes up sales curves.

Here are just a few examples of the packages we produce for the markets we serve:

BAGGED STAPLES

Transparent bags of cellophane or other film, in varied weights and constructions to suit the product, beautifully printed with brand name and selling message. Essential for successful self-service.

FROZEN FOODS

Bags or printed overwraps that either show the contents or picture them brilliantly in fine multi-color printing and that supply needed protection from plant to home.

TEXTILES AND PAPERS

Beautifully printed cellophane exhibits design, texture, quality without danger of soilage. Adds gift appeal; self-selling features please stores and buyers.

FRESH PRODUCE

Printed bags and overwraps of cellophane or other films, designed for the technical requirements of each item. They carry brand names into the home, reduce losses and waste, stimulate sales at self-service counters.

BAKERY GOODS

Printed cellophane bags or wrappers create consumer acceptance, encourage mouth-watering display. A tested method for improving volume and reducing stale returns.

"THIRSTY" PRODUCTS

METALAM* laminated combinations of film and foil for extreme moisture-vapor-proof, odor-proof protection of dehydrated foods or juices, pharmaceuticals, chemicals and other "thirsty" products. Especially formulated for automatic, high-speed loading and sealing. Color-printed for high visibility and sales impact.

TRITECT* (wax-laminated cellophane) has high protective value for small or bulk quantities, as liners for packages or barrels. Colorful printing increases utility and sales appeal.

METAL SPECIALTIES

Tough, semi-transparent TRITECT* (wax-laminated cellophane) provides moisture-protection for finely-finished metal devices of any size, packed singly or in quantities. Printed for sales impact and for brand identification.

COURTEOUS ZIP-TAPE

Cigarette buyers like ZIP-TAPE's fast, easy opening. Equally attractive for razor blades, confections, food products or other machine-wrapped items. Costs almost nothing per package yet adds a bright strip of color and extra convenience that builds repeat sales.

HOLIDAY WRAPPINGS

Colorful, sparkling printed cellophane gives special appeal to your products for holiday seasons or attractive gift wrapping. Produced in bags, sheets or rolls.

WE'LL MAKE *YOUR* BUSINESS *OUR* BUSINESS

Dobeckmun service starts with a study of your products, market and selling programs. Ingenious designers create a protective package to fit your product and packaging methods. Then, with the finest of printing processes, each suited to the specific purpose, we deliver colorful, uniform, brilliant packages with that "personality" which pushes up your sales curves. Show us what you have to sell... we'll build a selling package. *The Dobeckmun Company, Cleveland 1, Ohio, Berkeley 2, California.*

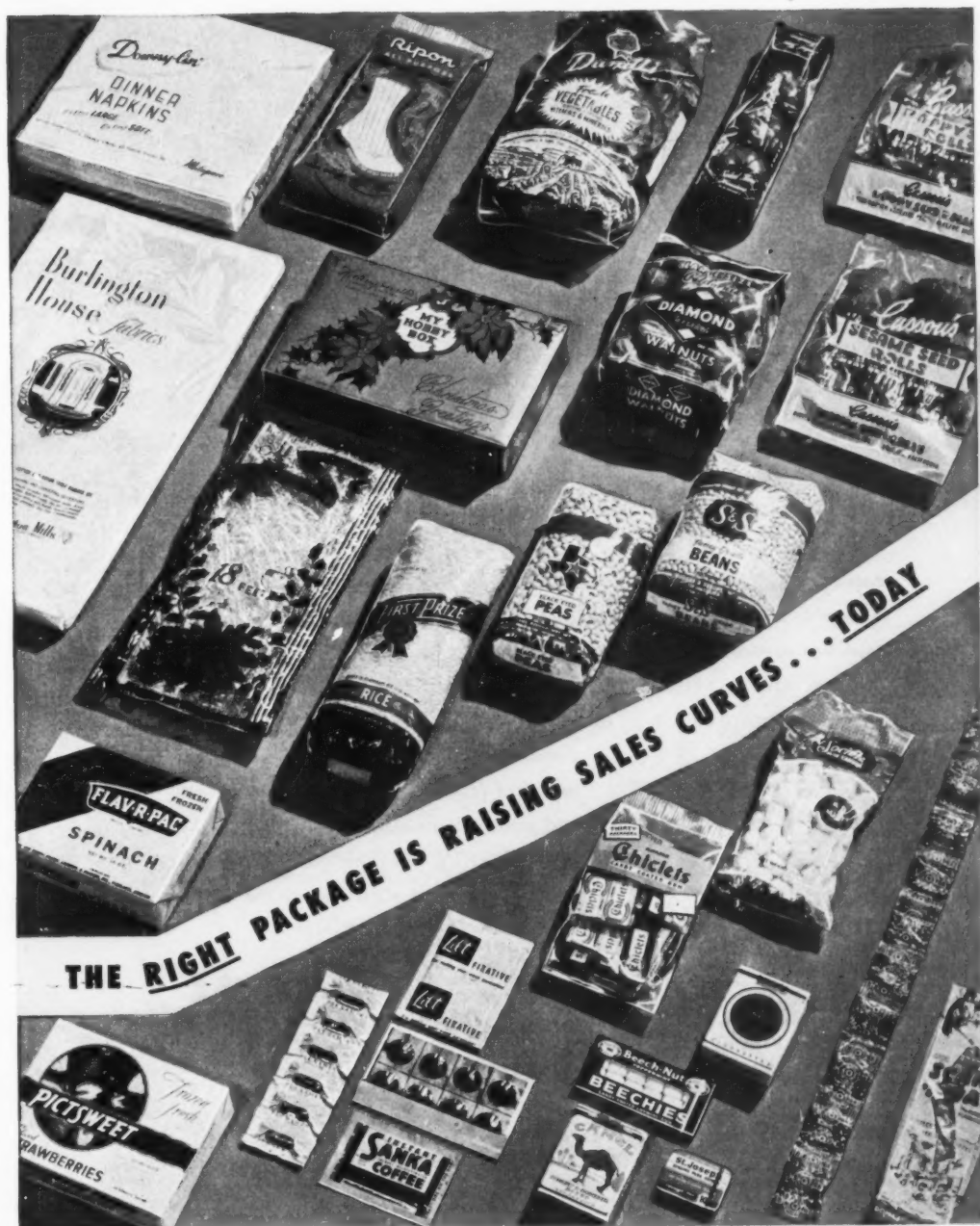
*Trade Mark

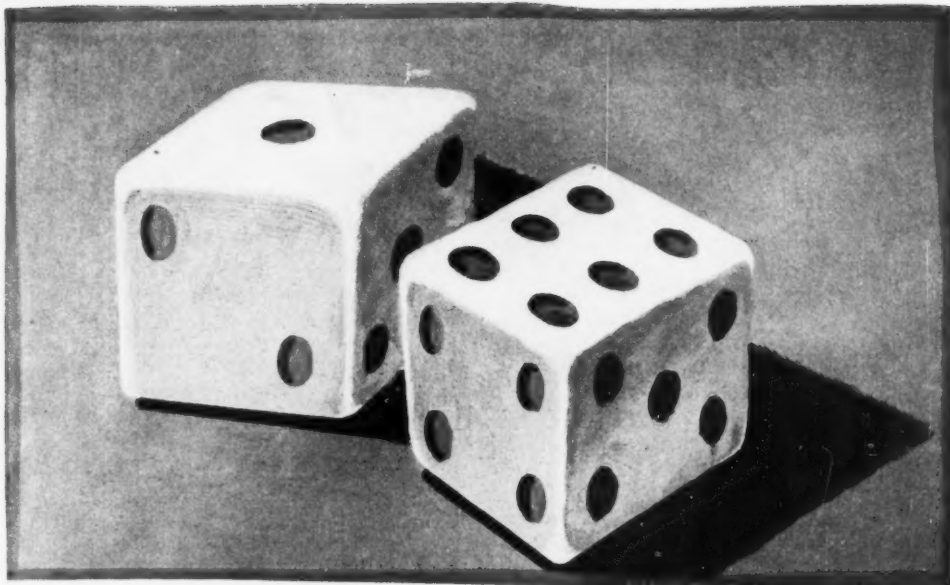
DOBECKMUN

* Self-selling packages in processed films and foils

Branches at Atlanta, Boston, Chicago, Cincinnati, Los Angeles, New York, Philadelphia, Portland, St. Louis, St. Paul and Seattle. Representatives everywhere.

WE'LL BUILD A *Selling Package*





Chances are 179 to 1 that Patapar can help YOU . . .

If you have a problem that ordinary papers can't handle there are 179 chances that you will find the answer in Patapar Vegetable Parchment. This unique paper is produced in 179 different types. Each type has special characteristics to fill special needs. For example, suppose your problem calls for a type of Patapar that permits "breathing". We can give it to you. Or we can give you a type that is air tight. Other types of Patapar fill varying

requirements of wet-strength, grease-proofness, moisture vapor resistance, thickness, translucency and many other characteristics.

SUGGESTION: Outline your problem. Let us help you solve it with one of the 179 types of Patapar.

SOME OF PATAPAR'S MANY USES

Butter wrappers
Ham boiler liners
Deep freeze wraps
Fish wrappers
Can liners
Cheese wrappers
Vegetable wraps
Bacon wrappers
Milk can gaskets
Oleomargarine wrappers
And hundreds of others



Patapar Keymark
nationally advertised
symbol of
wrapper protection

Patapar

REG. U.S. PAT. OFF.

**HI-WET-STRENGTH,
GREASE-RESISTING PARCHMENT**

PATERSON PARCHMENT PAPER COMPANY • BRISTOL, PENNSYLVANIA

Headquarters for Vegetable Parchment since 1885

West Coast Plant: 340 Bryant Street, San Francisco 7, California

Sales Offices: 122 East 42nd St., New York 17, N. Y. • 111 West Washington St., Chicago 2, Ill.



MAKE YOUR PRODUCT EASY TO USE

To get your product in the hands of more customers . . . to make it more useful—more usable . . . try packaging in Alcoa Aluminum Tubes! So handy a package, so *easy* to use, Alcoa Tubes are proving effective salesmen . . . profit-makers . . . for many companies producing a wide variety of products.

Plan now for better packaging tomorrow! Send a sample of your product to our Alcoa Packaging Laboratory. We'll test it in Alcoa Aluminum Tubes . . . report back to you facts and figures that may open the way to more profitable packaging for your product. Address: ALUMINUM COMPANY OF AMERICA, 2129K Gulf Bldg., Pittsburgh 19, Pa.



FREE BOOKLET! "Packaging in Alcoa Aluminum Tubes" describes filling and closing operations; gives weights and capacities of tubes; lists standard sizes, dimensions and tolerances, and has many more pages of helpful information. Write for "Packaging in Alcoa Aluminum Tubes" today.

Advantages of Alcoa Aluminum Tubes

- Easy Dispensability
- Smart Appearance
- Greater Strength
- Light Weight
- Good Economy
- Non-Toxic





There's "magic" in these six numbers

...PERHAPS "MAGICAL" PROFITS FOR YOU, TOO

WHAT DO THESE NUMBERS DO? They pinpoint the six advantages of packaging products in metal containers.

ONE: Cans fill and close easier...faster.

TWO: Cans are break-proof.

THREE: Cans protect contents from light, air, dirt, insects, moisture.

FOUR: Cans are lightweight...mean lower shipping costs.

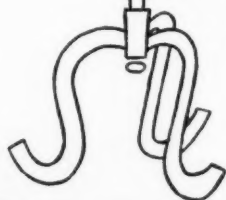
FIVE: Cans stack easier...stay that way.

SIX: Cans mean eye-appeal for impulse buying. What other type package gives you *all* the advantages of metal containers?

None!

AMERICAN CAN COMPANY

New York • Chicago • San Francisco



This trademark  is your assurance of quality containers. Look for it!



EYE STOPPER

That's the effect a Dennison Designed seal gives your package. It has that something extra—the result of constructive imagination, designing talent, manufacturing teamwork. Dennison experience and versatility offer you the finest in packaging accessories — tags, seals, wraps, bands, labels, merchandise cards, set-up boxes. For samples and suggestions appropriate to your product, call nearest Dennison sales office or write Dennison Manufacturing Co., Framingham, Mass.

Dennison

PAPER PRODUCTS FOR MORE THAN A CENTURY

Set-up Boxes

*Dennison
Designed*

Ronson, "World's Greatest Lighters", are displayed in fine packages for sales display appeal, gift value, and merchandise protection.

Dennison designed set-up boxes assure fine packaging, because they represent talent, skill, and experience attained through one hundred and five years of leadership in the field of packaging...

- Talent in creative design
- Skill in selecting and adapting materials
- Experience in manufacturing quality products

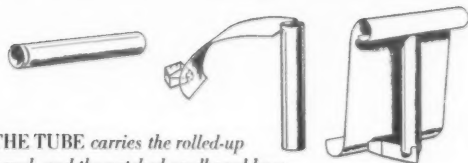
Dennison offers you a single cost transaction... expert designing and reliable production... in one price.

Call nearest Dennison office, or write Dennison Box Division, Marlboro, Mass.



LOOK TO **Dennison** FOR EXTRA VALUE IN
MATERIALS — DESIGN — WORKMANSHIP

The mailing tube that leads a fuller life!



THE TUBE carries the rolled-up panel, and the notched cardboard base which supports the tube in a vertical position... Rear view of erected display is shown.

CARDBOARD...to the display business is what brick is to a bricklayer, timber to termites, salt water to the Navy, and mashed potatoes to a large family. We spend our business lives and some twelve-hour days thinking, dreaming and working with it.

Then up pops a stranger with a slightly colossal cardboard idea. He builds vacuum stacks or something, doesn't know displays from Bullfinch's mythology—thought they were made just by tracing projected lantern slides!...It was all very embarrassing. But we overcame our embarrassment in time to buy the rights to the idea.

You know what a mailing tube is—just cardboard in cylindrical form? Well, this tube becomes the vertical standard for the rolled-up display panel it carries. A small notched V base keeps the tube erect. The display hooks to the top rim, and is secured at the base. The tube delivers, supports and stores the display...can also carry samples or actual merchandise at the same time—bottles, jars, tubes!

THIS roll-up display is really novel, has a lot of distinction, *je ne sais quoi* and stuff! Costs a lot less than standard displays, too. First come, first served—though envelopes carrying the name of old customers do get opened ahead of others.

We are not restricted to roll-up displays this season...have some nifty notions on animation, etc., etc. Also jumbo floor stands. And plain two-dimensional displays. Always a pleasure to show them—and you!

Einson-Freeman Co.

Never-inert-to-new-ideas-lithographers

STARR & BORDEN AVES., LONG ISLAND CITY 1, NEW YORK

"Good packaging starts with ENGINEERING"

Says

C. A. SOUTHWICK, Jr.

*(Packaging Engineer and Technical Editor
of "Modern Packaging")*

The men who engineer sales-winning packages know that product protection is one of their most important functions. They know from long experience that repeat sales depend on whether a product reaches the customer in good condition, with all its pleasing qualities intact.

Check the sales leaders in field after field and you will find well-engineered packages . . . and over and over again, you will find a Riegel paper inside for product protection. Many other Riegel papers are designed for flexible packages, for laminates, for outer wraps and for almost every requirement in protective packaging.

Tell us your needs, and we believe we can offer you a paper that will do your job . . . efficiently and economically.

RIEGEL PAPER CORPORATION
342 Madison Avenue, New York 17, N.Y.

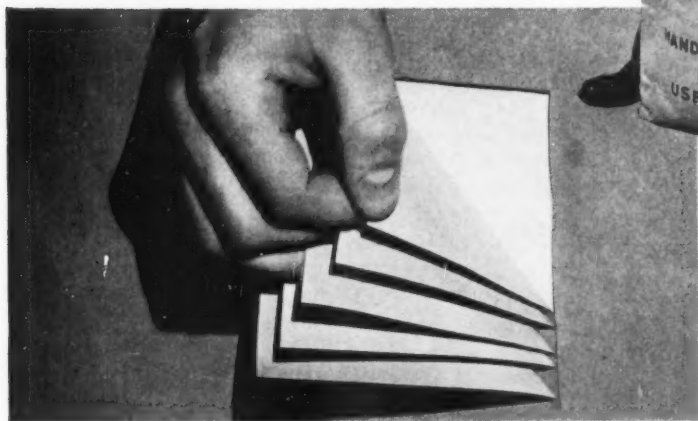


Riegel *Tailor-made Papers for
Protective Packaging*

Now

PACK THE "HARD-TO-PACK"

Economically!



BAKELITE Polyethylene coating on an inner layer of paper bag adds strength, resists chemicals, bars moisture passage.



Today you can buy *economical* multi-wall paper bags with an inner layer of BAKELITE Polyethylene-coated kraft paper—for these once unpackable or hard-to-pack products.

A process developed by St. Regis Paper Company has provided the new economy—and opened doors on new packaging horizons with BAKELITE Polyethylene.

For BAKELITE Polyethylene, newest of the family of BAKELITE Plastics, has already proved its immense usefulness in packaging because of its unusual properties. To name a few, it is inert, tasteless, odorless, non-toxic, and *extremely resistant* to moisture, greases, oils, alcohol, alkalies, most strong acids and extremes of temperature.

BAKELITE Polyethylene multi-wall bags make superior containers for hygroscopic materials, particularly in

the chemical and food fields. They protect the original freshness of foods, frozen or fresh. And Polyethylene adds considerably to the strength of the paper it coats.

Flexible and resilient, it resists damage from careless handling, and its success is already measured in efficient packaging of such items as meat trimmings, calcium chloride, powdered skim milk, and synthetic resins.

For full details on packaging with BAKELITE Polyethylene—as well as VINYLITE Brand Plastics—write Dept. GZ-55.

Bakelite
Polyethylene
PLASTICS

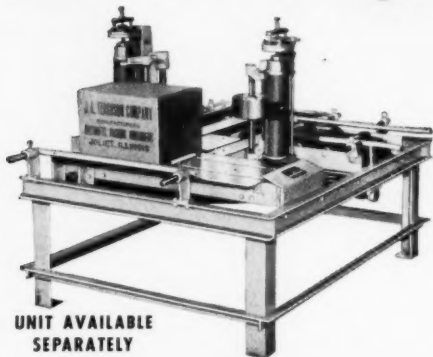


BAKELITE CORPORATION, Unit of Union Carbide and Carbon Corporation  30 East 42nd Street, New York 17, N. Y.

OCTOBER 1949

57

PRINT...as you glue...as you seal fibre or corrugated shipping cases



Something new has been added to *PACKOMATIC's* automatic shipping case handling combination—a new and decidedly improved case imprinter. Print from one to eight lines on any or all panels, depending upon size of type and height of case. Print from new foam rubber type that follows surface con-

WITH **PACKOMATIC'S** Automatic **CASE IMPRINTER**

**Only Imprinter equipped
with Automatic Inkers**

tours and insures *new* neatness and legibility. Print in *colors* with *new* special inks that dry quickly. No blur...no smudge...no handling delays. *NEW* simplicity of operation. *New* sturdy construction. *New* and improved design. Write for details. J. L. Ferguson Co., Rt. 52 at Republic Ave., Joliet, Ill.



CODE...DATE...NUMBER, TOO...

**with Model "D" Packomatic
Automatic Case Gluer-Sealer**

Corrugated shipping cases sealed, counted...consecutively serial-numbered...dated...and imprinted as desired—with *all operations automatic*—that's what you get with a *PACKOMATIC* Model "D" Shipping Case Sealer, equipped with *PACKOMATIC* Counter, Dater-Coder and Serial Numberer, augmented by *PACKOMATIC's* new case imprinter.

Model "D" case gluers & sealers are adaptable

to practically any production requirement or plant layout, for handling a wide range of case sizes at speeds up to 3,000 per hour.

Offset narrowing profit margins by modernizing your packaging operations—from carton forming, gluing and filling, to case packing, sealing, coding and imprinting automatically. Let *PACKOMATIC* help you. An inquiry incurs no obligation—direct or to the *PACKOMATIC* office nearest you.

PACKOMATIC
PACKAGING MACHINERY
J. L. FERGUSON CO. JOLIET, ILL.

Member of Packaging Machinery Manufacturers' Institute

CHICAGO • NEW YORK • BOSTON • BALTIMORE
CLEVELAND • DENVER • NEW ORLEANS
SAN FRANCISCO • LOS ANGELES • SEATTLE
PORTLAND • TAMPA

Packaged to change "Eyers" into Buyers



Molded of Koppers Polystyrene

HERE'S a new idea in candy packaging that adds a *plus* value for thrifty buyers. The sparkling transparent box of Koppers Polystyrene displays candy at its best—and still protects it from the air.

When the candy has been eaten, a woman will find a dozen ways to re-use this handy box . . . on her vanity as a catch-all . . . in the medicine closet to hold bandages, adhesive tape and small items . . . or her husband can use it for his fishing tackle.

This package was designed and molded by Beacon Products Corporation, Newton Highlands, Mass. Their design is standardized and not only packages candy but can also package stationery, hosiery, playing cards, handkerchiefs and other merchandise whose sales are aided by the crystal clarity, richness and low cost of Koppers Polystyrene.

Bring your packaging problem to Koppers

Whether you make sporting goods, food products, cosmetics, jewelry—Koppers Polystyrene offers a combination of qualities that is well worth investigating. It is tasteless, odorless and extremely low in water absorption . . . will hold food products, alkalies, and most acids . . . can be supplied crystal clear or in any desired color.

Possibly Koppers can help you with your packaging problems. Our technical staff is ready at all times to help you improve your designs and to choose the right packaging materials for your application.

KOPPERS COMPANY, INC.

Chemical Division

Pittsburgh 19, Pa.

Regional offices in New York, Chicago and San Francisco

Koppers *Perfected* Plastics

*POLYSTYRENE

*ETHYL CELLULOSE

*CELLULOSE ACETATE



SEND FOR *New*
BOOKLET

Koppers Company, Inc.
Chemical Division, Dept. MPG 10
Pittsburgh 19, Pa.
Please send me your new booklet
on Koppers Plastics.

Name _____
Company _____
Address _____
City _____ State _____

Incomparable CELLO-WRAPPING achieved at New Low Cost

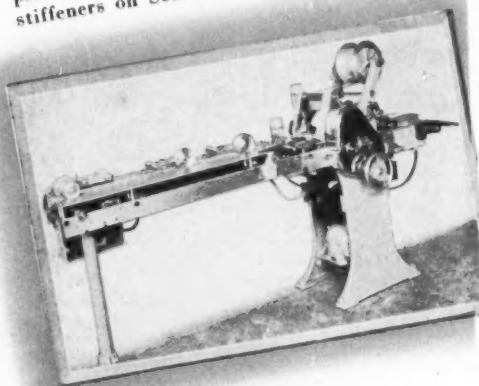


Two new multi-wrapped Beechnut packages wrapped without cardboard stiffeners on Scandia* machines.

The Facts —

100-A-MINUTE for multi-packs is standard performance on these popular packs. They are wrapped WITHOUT cardboard bases; require 30% LESS cellophane than other automatic machines because of Scandia's thrifty style of wrap and have many operating advantages — like the movable heat-sealers which automatically move away from the packages whenever the machines are stopped, thereby preventing scorching or "cooking" of the product.

No production executive, contemplating increased production at lower cost, can afford to plan until he has seen smooth-running, quiet, fast and thrifty Scandia's at work . . .

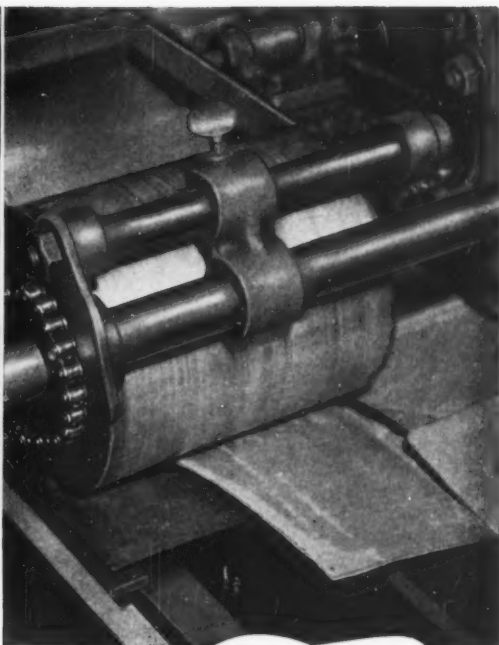


*made under Bronander patents.

Scandia

MANUFACTURING COMPANY
NORTH ARLINGTON, NEW JERSEY

- ★ Saving 30% cellophane —
- ★ without using any cardboard



Seal CASES IN 20 SECONDS!

BOXEAL is the new *fast setting* Shipping Case Glue which tears fibres 15 to 20 seconds after application by brush or machine. Brings new high speed and efficiency to all production lines where short pressure time is essential. **BOXEAL** permanently seals all types of shipping boxes, corrugated, Fourdrinier kraft, jute, solid fibre. Non-toxic, odorless, stainless, and most of all . . . **FAST SEALING!**



Get our complete laboratory report on Paisley **BOXEAL** and take advantage of the offer to send a trial 5 gallon shipment at the 55 gal. drum price available to all drum users of shipping case glues. We'll ship **ON APPROVAL**, F.O.B. our nearest plant, New York or Chicago. Fill in the coupon below, attach it to your letterhead, and mail it to us **TODAY**.

★ **DON'T WAIT . . . FILL IN AND MAIL THIS COUPON FOR GENEROUS TRIAL OFFER** ★

Gentlemen: Please send complete information about Paisley **BOXEAL** Shipping Case Glue.

- ☐ You may send, on approval, trial 5 gal. shipment of "BOXEAL" at 55 gal. drum price.
☐ Send me a copy of Laboratory Report on "BOXEAL".

FIRM _____

STREET _____

CITY _____

ZONE _____

STATE _____

BUYER _____

PAISLEY

PRODUCTS INCORPORATED

1770 CANALPORT AVENUE, CHICAGO 16, ILL. PHONE CANAL 6-2219
 630 WEST 51st STREET, NEW YORK 19, N.Y. PHONE COLUMBUS 5-2860

Manufacturers of Glues · Pastes · Resin Adhesives · Cements and related Chemical Products

packaging



Mamspec

**Moore and Munger Specifications
means**

perfection in petroleum wax

for every packaging need



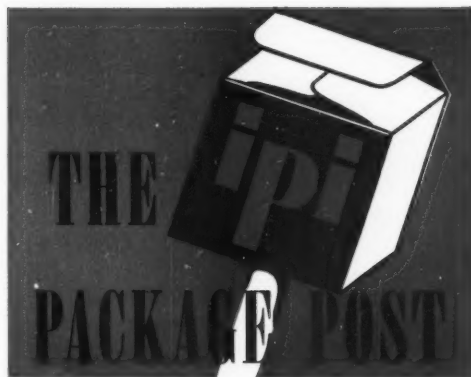
MOORE & MUNGER—33 Rector Street—New York 6
Marketers of Petroleum Wax for Over Half a Century

**100% IPI Anilox Inks
Print Sharp, Look Sharp**



IPI Anilox inks are 100% pigmented inks for aniline and aniline-type presses.

They print sharp, look sharp on the package—need no slip sheeting. Opacity and light-fastness are tops. Anilox inks offer wide color choice for practically all types of stock. They work well on patent coated and other papers, board, acetate, foil—even highly plasticized cellophane. IPI Anilox System of ink distribution controls ink film for more uniform color.



IPI, Anilox, and Speed Limit are trade-marks of Interchemical Corporation

**Free Booklet on Color
for Package Printing**



Color problems in package printing are easy to solve if you know the answers in advance. That's why IPI prepared the booklet "Color for Package Printing". It has 14 color sketches, including the full hue circuit. Color control and measurement are fully explained. And it also tells about new inks and processes, how to select printing inks to meet specifications. Copies are free. Ask your IPI salesman or write us at 350 Fifth Ave., N.Y. 1, N.Y.

IPI • DIVISION OF INTERCHEMICAL CORPORATION • 350 FIFTH AVE., NEW YORK 1 • ADDRESS INQUIRIES DEPT. A

**NEW PONTIAC PACKAGE
GIVES CLASS AND COLOR
TO AUTO ACCESSORIES**

Now Pontiac adds class and sales appeal to homely items like pedal extensions. A sparkling new package does the trick with clean design and distinctive printed colors.

IPI developed the inks in two special colors—Pontiac Red and Pontiac Buff—under the direction of J. K. Stuart (Pontiac Motor Division, General Motors Corp.) and the designers, McManus, John and



Adams, Inc., Detroit. IPI Speed Limit Black is the third color.

A special IPI varnish protects this package and keeps it looking new. Stockroom dust wipes off easily.

Much credit for the appeal of Pontiac's package is due the package printers who produced it—Great Lakes Box Company (Cleveland) and Spitzer Paper Box Company (Toledo).

**IPI HAS 'EM—MATCHES FOR ALL COLORS
SHOWN IN NEW G.C.M.I. COLOR CHARTS**

**Package Printers Can
Order Inks by Number
from Nearest IPI Branch**

Now package printers can get IPI inks to match all the new G.C.M.I. package colors. And they can get them from any one of IPI's 31 Branches and Service Stations throughout the country. All of these colors may be ordered by number as shown in the color charts just issued by the Glass Container Manufacturers Institute, Inc.

Colors in the new charts are those found most popular for printing corrugated boxes for glass containers. They are also said to be time-tested for legibility against the characteristic color of corrugated board. The effect of backgrounds on printed colors is of great importance in package printing.

**Charts Developed for
Better Color Control**

The G.C.M.I. developed these charts to give the industry better standards for color control in production. The use of these and other visual standards helps to prevent too much "color drift" from original colors due to stock variations. IPI also recommends that package



printers use "tolerance curves" (determined with the Recording Spectrophotometer) for maintaining color standards in package printing.

**G.C.M.I. Covers Wide
Range of Color Needs**

The 36 G.C.M.I. colors cover a range wide enough for most requirements. The charts were printed with oil inks, but IPI can also supply commercial matches for all colors in moisture-set and aniline or Anilox inks if customers desire. Next time you have G.C.M.I. colors specified, just send the numbers (right out of the chart) with stock samples and other data to your nearest IPI Branch or Service Station.

**"MAGIC FOIL" PACKAGE
CATCHES EYE, TELLS STORY
WITH IPI BLUE, ALUMINUM**

Here is a "self-selling" package that complies with all rules of good design in the home products field. It's the new Magic Foil Aluminum Wrap box produced for Quaker Waxed Products Corp. by Container Corp. of America—design by Shaw and Schreiber, all of Phila.

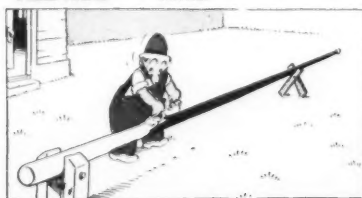
The production story of this package is unusual. It was printed wet on a Miehle two-color press with special IPI first down gloss blue and second down aluminum. Speed of press, 1700 iph with both wax and dry sprays.

Usually a package like this is run on single-color presses. The aluminum is printed first (either with or without a size underneath). Then comes the blue over the aluminum. But with the right IPI inks plus fine craftsmanship, package print-



FERD'NAND

Shortcut



By Mik

ers can save at least one trip through the press and produce first class results.

Container Corporation and Quaker Waxed Products rate orchids for this sparkling, clean-cut package. It's one of the best of its type we've seen. Ask your IPI salesman to show you the Magic Foil Aluminum Wrap box. Or write us at 350 Fifth Avenue, New York 1, N. Y.



Take the Pretty One, Mommy!

And Mommy buys it, because she knows that the "pretty one" is also the freshest one. Shelf appeal—plus protection! Protection—plus shelf appeal! That's the "Beauty at Work" value of Cochran's Aluminum Foil for numberless packaging uses. Wrappers made with Cochran Foil seal in goodness and flavor—they preserve and protect while their striking beauty attracts and sells.

Cochran's Aluminum Foil may well fit into your packaging needs. We will be happy to refer your inquiries to qualified package manufacturers for a comprehensive study of your requirements.



Cochran

COCHRAN FOIL COMPANY
INCORPORATED
LOUISVILLE 10, KENTUCKY



SALES OFFICES • 3318 East Lake Street Minneapolis 6, Minn. • 632 Fisher Building Detroit 2, Michigan • 500 Fifth Avenue New York 18, New York • 238 West Wisconsin Ave. Milwaukee 3, Wisconsin • Hippodrome Bldg. Cleveland 15, Ohio



NESBITT'S
Nesbitt's Fruit Products, Inc.

Cuts shipping costs— reduces damage in transit!

Does the product you ship enjoy maximum protection against weather and rough handling? Is your packaging operation fast, economical—up-to-date? Before answering, consider these facts about KIMPAK® creped wadding.

Unlike bulk packaging materials, the compact blanket form of KIMPAK is soft and clean. As quick and easy to apply as wrapping paper. Will absorb up to 16 times its own weight in moisture, within 30 seconds. KIMPAK is feather-light to reduce shipping weight; flexible—to conform to irregular surfaces; shock-absorbent—to guard against roughest handling.

Moreover, KIMPAK is neat and attractive-looking to add, rather than detract, from the appearance of your package. And there is a specification to meet every requirement of the Four Basic Methods of Interior Packaging: Bracing and Blocking, Flotation Packaging, Surface Protection, Absorbent Packaging.

Plan now to improve your packaging operation, and save money, too. For information, refer to your classified telephone directory under "Packing Materials" or "Packing Materials—Shipping"; or write directly to Kimberly-Clark Corporation, Neenah, Wisconsin.



Blocking and Bracing. Fruit-of-the-Month Club® Preserve Package. Photo courtesy of Harry and David, Inc., Bear Creek Orchards, Medford, Oregon.



Blocking and Bracing. French Type Cheese Assortment. Photo courtesy of Behle Bros. Co., Rolling Prairie, Wis.

—FREE BOOKLET!

Kimberly-Clark Corporation
Neenah, Wisconsin

Please send me free, the illustrated KIMPAK booklet "Float Packaging".

MP-1049

Name

Firm

Address

City Zone State

Kimpak

REG. U.S. PAT. OFF. & FOREIGN COUNTRIES



CREPED WADDING

*T. M. REG. U. S. PAT. OFF.

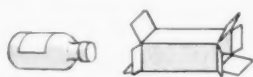
OCTOBER 1949

65

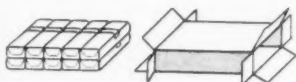


Adjustable Model 45 for **ECONOMICAL AUTOMATIC CARTONING**

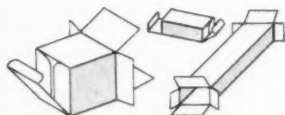
on Short or Long Runs of Different Size Cartons



CECO Model 45 automatically cartons solid unit items like bottles, film rolls, bearings, and machine parts.



Multiple unit items like cigarettes, chewing gum, spark plugs, tobacco, candy, and drugs are cartoned automatically in display packers.



CECO Model 45 is readily adjustable for various carton sizes and types. It tucks flaps at both ends, or tucks one end and seals the other, or seals both ends.

The new CECO Model 45 provides a simple, inexpensive solution to the problem of how to cut packaging costs.

CECO Model 45 automatically cartons bottles, collapsible tubes, machine parts, and any other solid, non-sifting unit or multiple items. It is quickly adjustable without tools by unskilled help for a wide range of carton sizes, so that short or long runs can be packaged economically. This simple, portable, versatile machine produces neat, clean, square packages that increase sales appeal.

Best of all, CECO Model 45 costs so little that it pays for itself within a year or less out of savings in labor alone.

SEND FOR NEW CECO MODEL 45 BULLETIN

CONTAINER EQUIPMENT CORPORATION

214 Riverside Avenue

Newark 4, N. J.

BALTIMORE • CHICAGO • JACKSON • PITTSBURGH
ROCHESTER • ST. LOUIS • SAN FRANCISCO
SAVANNAH • TORONTO

The advertisement features a central circular logo with the text "Gaylord Boxes" in a stylized script. Surrounding the logo are twelve line drawings of various types of boxes and containers, including a large rectangular box with internal dividers, a small open box with a lid, a tall cylindrical container, a box with multiple drawers, a box with a handle, a box with a lid and a small opening, a box with a handle and a small opening, a box with a handle and a small opening, a box with a handle and a small opening, a box with a handle and a small opening, a box with a handle and a small opening, and a box with a handle and a small opening.

Whatever Your Packaging Problem May Be— Gaylord Should Be Consulted

Gaylord's Engineering and Research men have come up with solutions to packaging problems that few people realized could be accomplished with corrugated boxes.

Ingenious designs affording ample protection have not only solved many manu-

facturers' packaging problems but have saved them money, too!

So, regardless of the nature of your product, call a Gaylord Sales Office. The Gaylord representative will make available to you the services of Gaylord's Engineering and Research.

GAYLORD CONTAINER CORPORATION General Offices: ST. LOUIS

- CORRUGATED AND SOLID FIBRE BOXES
- FOLDING CARTONS
- KRAFT GROCERY BAGS AND SACKS
- KRAFT PAPER AND SPECIALTIES

New York • Chicago • San Francisco • Atlanta • New Orleans • Jersey City
Seattle • Indianapolis • Houston • Los Angeles • Oakland • Minneapolis
Detroit • Jacksonville • Columbus • Fort Worth • Tampa • Cincinnati
Dallas • Des Moines • Oklahoma City • Greenville • Portland • St. Louis
San Antonio • Memphis • Kansas City • Bogalusa • Milwaukee
Chattanooga • Weslaco • New Haven • Appleton • Hickory • Greensboro
Sumter • Jackson • Miami • Omaha • Mobile • Philadelphia

Fighting for Sales?



Get help from a Boxing Champ!



Designers and manufacturers of SET-UP PAPER BOXES

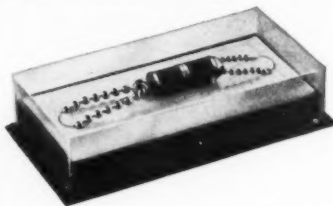


CHAIN REACTION!

Want prompt, profitable reaction to the introduction of a new product? Take a tip from the makers of Car-Mac, the fascinating new key-chain that enables you to detach your ignition key in a split-second.

When Carey-McFall Company recently decided to bring out a "super de luxe" model of its key-chain, it asked the Miller representative for suggestions. The result is pictured here: an individual showcase with a clear-as-crystal acetate top, and a velour-covered base to hold the product in eye-catching display position.

Here, indeed, is a de luxe set-up for a de luxe product . . . at economical cost! Trade and consumer acceptance was immediate.



You'll do well to get Miller's help in packaging *your* new product, or in dressing up your present line. The Miller organization can give you the benefit of experience gained in designing and making millions of boxes for leading producers in the pharmaceutical, hardware, confectionery, apparel, toy, and jewelry industries . . . to name only a few!

MARKEM
MARKING

MARKEM
MARKING



Quality Marking is a sales Aid

Quality marking of variable information on product or package is a definite aid to sales. Marking should be highly legible, attractive and economically applied. Marking equipment should be versatile and adaptable to rapid type changes.

With Markem marking machines and Markem specially developed, quick-drying inks you are assured of a high quality, clear, legible marking done in your own plant when you want it, as you want it, at lowest cost. No large inventories of pre-printed boxes or labels. No printing delays. No outside printing costs.

There are Markem machines especially designed for the clothing, hosiery, leather goods, sportswear, cosmetics, drugs, electrical and industrial fields for marking directly on the product and on boxes, labels, envelopes, bags, hanger labels, tags and on industrial and pressure sensitive tapes. Markem's 38 years of experience has helped solve hundreds of marking problems.



MARKEM MACHINE COMPANY, KEENE, NEW HAMPSHIRE

Investigate the cost-saving, time-saving advantages of Markem marking equipment. Have a Markem representative call and discuss your present marking operations or send us samples of your product or package with information to be imprinted. No obligation. Use coupon.

Markem Machine Co., Keene, N. H.

- ☐ Have Markem representative call.
☐ Please send literature. We mark the following:

- ☐ We are sending samples of our product, package, label

Name _____

Company _____

Address _____

DRY PRODUCT PACKAGERS!

More accurate weighing-filling at high speeds. That's what you get with Wright's Hy-Tra-Lec Weighers. Range: One-half ounce to 16 ounces. Semi-automatic when bags are used. Fully automatic for rigid containers. Available with one, two, three, or four weighing heads. Savings in labor costs and reduced "over-weights" will pay for the machine many times over.



Cut
PACKAGING
COST
with



HY-TRA-LEC

... accurate, fast weighing

First it was potato chips and allied products. Next . . . crackers, cookies, and pretzels. Then candies including even gum slices and marshmallows. And now Hy-Tra-Lec—the new method of weighing—is proving itself practically across the board in the free-flowing dry product field.

Don't let competition win the march towards lower production costs. Get the full story on this decade's most important ad-

vance in weighing-filling technique. Write today for descriptive literature.

WRIGHT MACHINERY COMPANY

500 CALVIN STREET

ESTABLISHED 1893

DURHAM, NORTH CAROLINA



SUBSIDIARY OF THE SPERRY CORPORATION

COMPANY SALES OFFICES: NEW YORK · CHICAGO · DURHAM

WEST COAST REP.: KING & ANDERSON, SAN FRANCISCO

SOUTHWEST REP.: R. P. ANDERSON COMPANY, DALLAS

CENTRAL REP.: HAL HUDSON EQUIPMENT COMPANY, TOLEDO

LUMARITH* (ACETATE) LINED ... FOLDING WINDOW BOX

**NEW PACKAGING METHOD
INHIBITS MOLD...
BOOSTS SELF SERVICE SALES**



Cel-a-fold Lumarith lined window box, manufactured by Interstate Folding Box Company, for Cudahy Packing Company.

The Lumarith-lined folding window box is a new idea in self service food packaging. It answers the meat packer's need for a sales-attractive, grease-proof package—that the shopper can handle as safely as a box of corn flakes.

The Lumarith transparent film window is actually a complete liner—the only part of the container that touches the food. Sausage, franks, dried beef, bacon and luncheon meats can be packaged in consumer-unit sizes that make perfect home dispensers—protecting and identifying the contents.

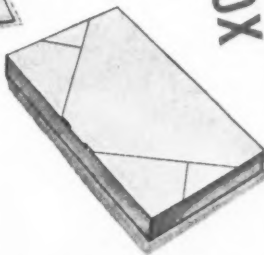
In the self service cabinet, these Lumarith-lined window boxes make appealing displays. Lumarith—the "breathing" wrap—never fogs up ... is always crisp and crystal clear. The same breathing quality helps retard the formation of mold and slime. This means virtually no returns or replacements.

If you'd like to receive more information about this new packaging method, get in touch with a Celanese representative. Celanese Corporation of America, Transparent Films Dept. 8-J, 180 Madison Avenue, New York 16, N. Y.

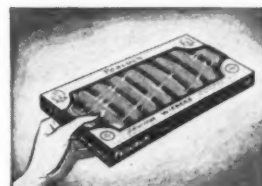
LUMARITH TRANSPARENT FILM

Celanese
PLASTICS

* Reg. U. S. Pat. Off.



DISPLAYS! Prepared meats become real sales producers when they are displayed in these attractive window boxes.



VISIBILITY! The non-fogging Lumarith window guarantees the shopper a good look at the contents ... she buys with confidence.



DISPENSER! The handy dispenser container is at home in the refrigerator ... keeps the brand name before the consumer.

WHEN YOU *Must*
REDUCE COSTS — USE

STANDARD-KNAPP PACKAGING MACHINES

WHEN YOU'VE got to buckle down, when you've got to make every minute and every motion on your production line pay off, you can't afford ordinarily efficient equipment — you need Standard-Knapp packaging machinery.

Whether you require just one machine, or a complete new packaging line . . . whether you use cans, bottles, or cartons . . . Standard-Knapp engineering and design experience assure cost-reducing efficiency for every packaging operation.

UNLOADERS



Remove glass containers from carton and place them in single file — or feed them into soakers and washers.

WASHERS



Provide fast, continuous delivery of washed new glass containers, without thermal shock.

UNSCRAMBLERS



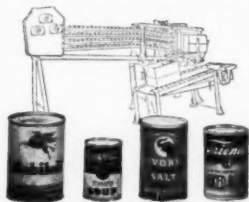
Rapidly arrange cans dumped from crates in single file at operating economies that quickly pay for machines.

LABELERS



Apply labels with speed and precision, to afford good package appearance at minimum cost.

CAN PACKERS



Place cans quickly and gently into shipping cases in a smooth, cost-saving operating sequence.

BOTTLE PACKERS



Automatically pack bottles into trays or cases, and pay for themselves in efficiency.

CARTON PACKERS



Automatically pack cartons of all sizes and shapes into display or shipping cases with maximum speed and economy.

GLUERS AND SEALERS



Apply glue to the carton or shipping case, not to the contents; insure strength with neat, economical sealing.

**STANDARD-
KNAPP**

DIVISION OF
HARTFORD-EMPIRE COMPANY

PORTLAND, CONN.



Royal Lustrous Foils

add ★S/A to your products.
Use them for attractive

Box coverings

Gift wrapping

Display

Many rich colors and finishes, sparkling embossed patterns and unusual printed designs for seasonal and year 'round usage.

Available in rolls and sheets

This sample is Foil Pattern #4 White on Silver

Also available in other Color Combinations

Write us for samples and price information

Royal Paper Corporation

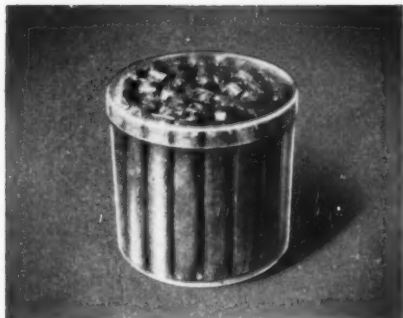
Manufacturers of Decorative Papers

210-216 Eleventh Avenue • New York 1, N. Y.

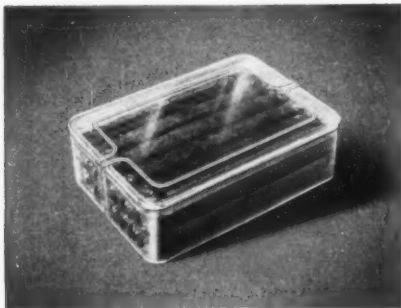
Tri-State

RIGID PLASTIC BOXES

Prove...



This round Humi-tainer keeps 50 cigars, or a pound of tobacco, in perfect freshness. Makes an attractive humidor that requires no troublesome moistening. Costs no more than a conventional wooden cigar box!



Square Selecto-Pak is an appealing introductory package—a "natural" at gift-giving times. Holds ten cigars comfortably, to make a good-looking, attractively-priced gift. Serves the smoker after the cigars are gone as a lunch box, office cigar tray, hobbyist's catch-all, or in a hundred other appealing ways. From our stocks.



YOU DON'T NEED AN INDIAN TO SELL CIGARS

Package them in plastic—in Tri-State Rigid Plastic—for a new high in sales appeal. A snug-hugging plastic cover provides humidor-freshness. A gleaming, crystal-clear transparent surface sells the long, tender leaf wrapper of your product on sight. Or choose a simulated Walnut finish, to get your "Humi-tainer" used on desks and in dens throughout your distribution area.

Many manufacturers, using sales and packaging techniques no less antiquated than the Cigar Store Indian, are missing out on their share of the modern market for just this reason. If you market a Staple Food Item—a Confection—a Perishable Product—Class or Mass Merchandise of any kind—it will pay to investigate our wide range of stock-sized and shaped boxes now. Or we'll mold to your specifications in plastic—the perfect packaging medium for maximum protection and peak point-of-sale appeal. Be "First" in your field—with Plastic.

The best Rigid Plastic Boxes are Injection Molded by

TRI-STATE PLASTIC MOLDING COMPANY

HENDERSON, KENTUCKY

New York: 12 E. 41st St. Chicago: 176 W. Adams St.

Los Angeles: 6235 S. Manhattan Pl.





THERE'S A SYLVANIA CELLOPHANE TO FIT YOUR PRODUCT!

Name your packaging requirements. Whatever your product, there is a member of the Sylvania family of cellophane to meet its needs.

Here under one name is a whole group of packaging materials each with its own combination of properties. Sylvania Cellophane is made with controlled degrees of moisture protection. It is available in different weights—with or without heat-sealing—for hand wrapping or high speed application on automatic machinery. All are truly transparent... offer extra visibility and the gleaming beauty that means extra sales appeal.

Talk over your packaging problems with the Sylvania representative. He'll help you determine the combination of properties needed for your product.

KNOW YOUR CELLOPHANE!

The booklet, "Characteristics and Uses of Sylvania Cellophane,"

fills a long felt want in the packaging field. Here are all the essential facts you need to determine the proper use of Sylvania Cellophane. Basic data on types, weights, protective qualities and recommended use is given in concise, easy-reference style. Write for your copy today. Address Market Development Department MP-1Q.



SYLVANIA CELLOPHANE

SYLVANIA DIVISION AMERICAN VISCOSE CORPORATION

Manufacturers of cellophane and other cellulose products since 1929

General Sales Office: 350 Fifth Avenue, New York 1, N. Y.

Plant: Fredericksburg, Va.





"Combination deals? Here's how tape licks packaging problems!"



DOUBLE-TAPE TRICK produced this good-looking combination package of Ballard Mixes. Besides combining two large packages, it was necessary to add a printed explanation of the deal without obliterating recipes on the



backs of the cartons. The tape solution is simple, and quick. "SCOTCH" Special Printed Tape on front outlines the deal; "SCOTCH" Cellophane Tape on back is completely transparent; the result—a neat packaging job.



A SINGLE STRIP OF "SCOTCH" CELLOPHANE TAPE does a fast, neat job of packaging and displaying your premium offer. This attractive, take-me-home combination of an aluminum mold taped to three packages of Home Brand Gelatine made a big hit with shoppers, set new sales records. Production was boosted 25% and necessary packaging personnel reduced 40% through use of a simple device perfected by our Tape Engineers.

Made in U.S.A. by **MINNESOTA MINING & MFG. CO.**, St. Paul 6, Minn.

also makers of other "SCOTCH" Brand Pressure-Sensitive Tapes, "UNDERSEAL" Rubberized Coating, "SCOTCHLITE" Reflective Sheeting, "SAFETY-WALK" Non-Slip Surfacing, "3M" Abrasives, "3M" Adhesives.

ANOTHER **3M** COMPANY PRODUCT

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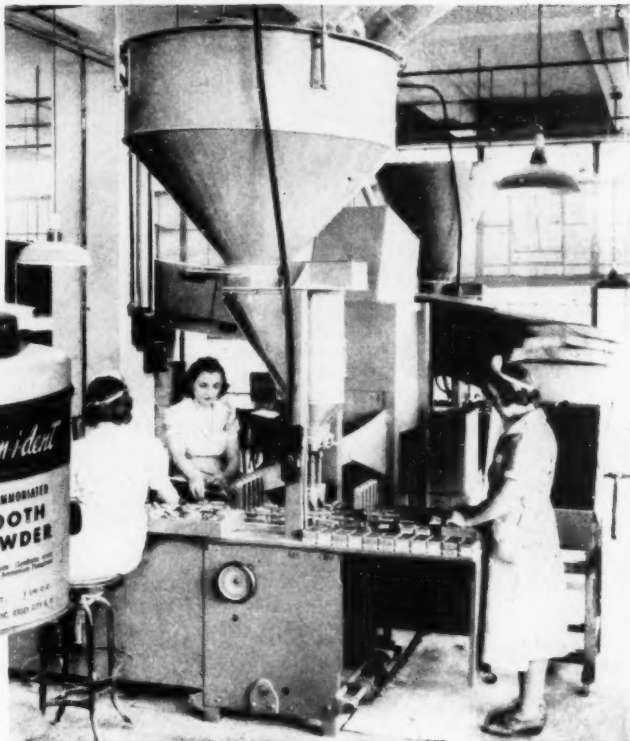
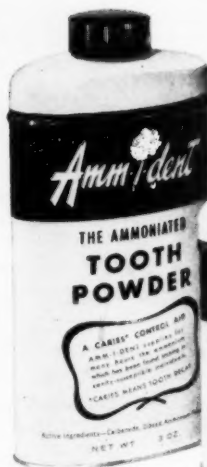


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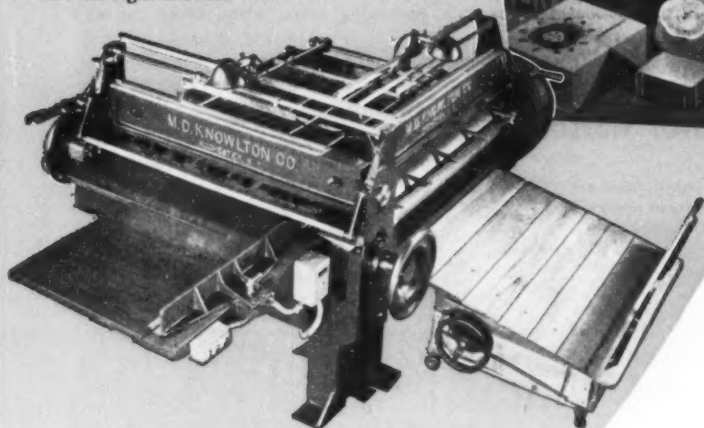
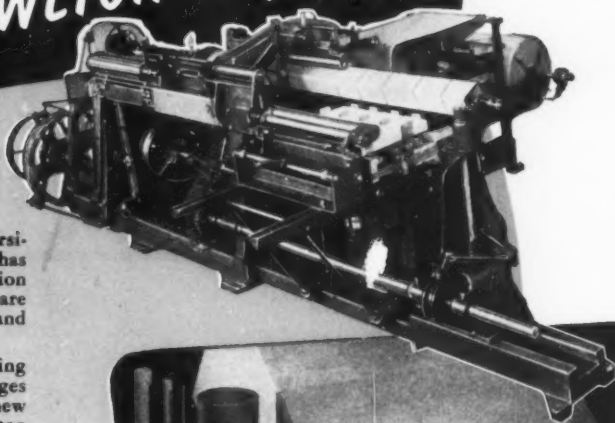
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Packaging Institute preview

CAREFUL PROGRAM PLANNING FOR 'MOST IMPORTANT' FORUM OCT. 24-26

MAKES POSSIBLE THIS ADVANCE BRIEFING FOR THOSE WHO WILL ATTEND

A program that has been many months in the making is ready for members of the packaging field who are expected, in record numbers, to attend the 11th Annual Forum of The Packaging Institute at the Hotel Commodore, New York, Oct. 24-26.

Focused on the single theme of "Packaging for the Buyers' Market"—covering the use of packaging to maintain quality, cut costs and stimulate marketing—this is a serious-minded program, carefully organized to explore and discuss the vital questions of the day in this field.

The Institute's Program Committee, headed by Charles O. Kendall of E. R. Squibb & Sons and directed by President Charles L. Barr and Executive Director Laurence V. Burton, has built the program upon a painstaking canvass of members to establish the subjects of greatest interest to the greatest number.

Not only is the objective of this meeting crystal clear, but the program appears to be organized with an approach which is refreshingly different from the past. Each of the seven sessions, except for the opening keynote meeting, is organized as a seminar,

which means that there will be little or no reading of prepared papers, but simply an informal discussion at which the panel members will present their opinions and viewpoints and answer questions from the audience. This is the type of program which, according to members, has been found most helpful.

The meeting comes at a time when the spotlight is more than ever on packaging as a means of capitalizing on the general business upturn which appears to be developing. The timeliness of the meeting, the great care with which the program has been laid out, the fact that the entire packaging field for several years has been looking to the Institute for bigger things—all seem to support the claim that this is "the most important meeting in the history of the Institute."

Subjects of the seminars have been organized on the very practical basis of "how" to realize the benefits of research, design, specification, etc., and these lessons will be illustrated by selected case histories, amplified by questions and comments from the floor. The objective is for the men on the platform to talk with



CHARLES L. BARR, serving his first term as president of The Packaging Institute, is the driving force behind the most ambitious Forum program yet attempted. Mr. Barr is also president of the F. B. Redington Co. of Chicago.

their audience, rather than to talk *to* their audience.

Social distractions will be at a minimum. The traditional banquet is being dispensed with this year and the only purely social event will be the reception and cocktail party on the second day of the meeting.

There will be luncheons between sessions on Monday and Wednesday, the latter being the occasion for a report by the General Activities and Steering Committee of the Institute.

Meeting with the Institute, by invitation, will be the First National Conference on Pre-Packaging, which will discuss plans for the formation of an association in that trade. Co-chairmen are William Lee Duvall and Paul B. Dickman. (Further details of this concurrent meeting will be found on p. 89.)

It should be stressed that both meetings are open to all interested persons, whether members of The Packaging Institute or not, upon payment of nominal registration fees. The fee for the entire three days will be \$10 for members, \$15 for non-members. For any single day's sessions the charge will be \$5 to members of the Institute, \$8 for non-members.

Following the Monday afternoon session, the Institute will have its annual business meeting and election of directors, at 4:30 p.m., and the new Board of Directors will meet at 5 p.m. to elect officers to serve for the coming year.

In order to find out what top management expects of packaging in today's marketing situation and thus to establish the theme of the meeting, Director Burton sent a letter to the chief executives of 100 package-user companies asking two pointed questions:

1. Please name the three most important results that improved packaging ought to do—or that you hope will—accomplish for your firm in the next year or two.
2. Please name three of your particular "gripes" about any aspect of packaging your company has experienced in the past year.

The indications of this survey will be reported in the feature address of the opening session by Arthur D.



ROBERT de S. COUCH, chairman of the Monday p. m. session on research, is head of packaging research for General Foods Corp.



ROBERT G. NEUBAUER, chairman of Tuesday a. m. session on design, is a leading package designer with studios in Bridgeport.

PROGRAM

**11th Annual Forum, The Packaging Institute
Hotel Commodore, New York, Oct. 24-26, 1949**

Monday morning, Oct. 24 (General session)

- 10:30 Welcoming address by **Charles L. Barr**, president, The Packaging Institute.
- 11:00 **PACKAGING FOR THE BUYERS' MARKET: QUALITY, COST AND MARKETING**—Theme address by **L. V. Burton**, executive director, The Packaging Institute.
- 11:45 **WHAT MANAGEMENT EXPECTS OF PACKAGING**—**Arthur D. Hyde**, General Mills, Minneapolis.

Monday afternoon, Oct. 24 (General session)

- 2:00 **HOW ORGANIZED PACKAGING RESEARCH PAYS OFF**—A seminar conducted by **Robert de S. Couch**, General Foods Corp., with panel members **Charles Munson**, Ciba Pharmaceutical Products Co.; **L. F. Borchardt**, General Mills; **Carl Sprague**, Sherwin-Williams Co.

Tuesday morning, Oct. 25 (General session)

- 9:30 **HOW PACKAGE DESIGN CAN MEET THE CHALLENGE OF COST AND MARKETING**—A seminar conducted by **Robert G. Neubauer**, package designer, with panel members **Beaven Mills**, Robert Gair Co.; **Max Rogers**, Avon Allied Products, Inc.; **Frank Coutant**, Fact Finders, Inc.

Tuesday afternoon, Oct. 25 (Concurrent sessions)

- 2:00 **FOOD PACKAGING**—A seminar conducted by **Dr. Louis B. Howard**, University of Illinois, with panel members **David Carpenter**, P. Duff & Sons; **C. K. Wiesman**, Armour & Co.; **Sam E. Noble**, Patton Foods Division, Chattanooga Medicine Co.; **Seymour F. Prager**, S. Gumpert Co., Inc.
- 2:00 **DRUGS AND PHARMACEUTICALS**—A seminar conducted by **H. Earl Nack**, Sharp & Dohme, with panel members **Carl B. Burnside**, Eli Lilly Co.; **Fred Bither**, The Upjohn Co.; **Charles O. Kendall**, E. R. Squibb & Sons.

Wednesday morning, Oct. 26 (General session)

- 9:30 **HOW TO SPECIFY FOR TRUE PACKAGING ECONOMY**—A seminar conducted by **Herbert T. Holbrook**, Standard Cap & Seal Corp., with panel members representing the various forms of packages: **Bags**—**Henry W. Stevens**, Benj. C. Betner Co.; **Cans**—**Roger V. Wilson**, Continental Can Co.; **Cartons**—**Stanley J. Klein**, Empire Box Co.; **Closures**—**Dr. John Sharf**, Armstrong Cork Co.; **Drums**—**D. C. Eldredge**, Paper Converting Div., Continental Can Co.; **Glass**—**J. S. Algeo**, Hazel-Atlas Glass Co.; **Plastic Packaging**—**Myron A. Wick, Jr.**, Plastic Manufacturers, Inc.; **Shipping Containers**—**John B. Wyatt**, Hinde & Dauch Paper Co.; **Collapsible Tubes**—**M. K. Dresden**, A. H. Wirz, Inc.

Wednesday afternoon, Oct. 26 (General session)

- 2:30 **FILLING AND LABELING PROBLEMS**—A seminar conducted by **Palmer J. Lathrop**, Cameron Machine Co., with panel members **A. F. Stevenson**, Borden Co.; **G. M. Woodruff**, General Foods; **George Garnatz**, Kroger Food Foundation; **Maurine Ponder**, Joseph E. Seagram & Sons; **John A. Warren**, American Home Products Corp.; **Adolph E. Tiesler**, Lederle Laboratories; **H. Oldenburg**, Mennen Co.; **Don Coppell**, Wagner Baking Co.

Hyde, vice president in charge of research of General Mills, Inc., speaking on the subject: "What Management Expects of Packaging." Dr. Burton's theme address, "Packaging for the Buyers' Market: Quality, Cost and Marketing," will complete the Monday morning program.

Mr. Hyde is in an unusually favorable position to view, from the management level, packaging in all its aspects. Divisional president of the Mechanical Division of General Mills, he is in touch with the machinery problems of packagers in all lines. A veteran of 21 years with General Mills, he formerly was director of the manufacture of flour, feed and cereals, and knows at first hand General Mills' own packaging problems, covering a line of products ranging from electric irons to breakfast cereals.

The general content of each session has been carefully outlined in advance, making possible the detail preview of program and participants, which follows. This, it is believed, will make it possible for the audience to come fully briefed and better prepared than ever before to get maximum benefit from this discussion.

MONDAY AFTERNOON

"How Organized Packaging Research Pays Off." Chairman Robert de S. Couch, who is in charge of packaging research and development in the Central Research Laboratories of General Foods, has organized a panel which will discuss not how research is done, but—as the title indicates—how it can be made to pay tangible benefits in a better, less costly, more readily salable package. Each speaker will present a case history from his own experience.

Mr. Couch, as head of one of the largest packaging research laboratories in private industry—a laboratory which has long been a leader in testing and development techniques—is eminently qualified to preside over this session. He is also a key man in The Packaging Institute, being chairman of the Steering Committee, which directs the activities of the numerous technical committees. A 1936 graduate of Lehigh University, Mr. Couch spent six years with Riegel Paper Co. and for three war years was an officer in the Quartermaster Corps, assigned to the Subsistence Research and Development Laboratory at Chicago, where he developed and wrote specifications for combat ration packages, including the famous "K" and "C" rations. He joined General Foods immediately after the war.

Charles Munson, supervisor of the Package Planning Division of Ciba Pharmaceutical Products Co., will describe the development of Ciba's nasal spray "Nebulizer" package—one of the most interesting pharmaceutical packages of the year (see MODERN PACKAGING, May, 1949, p. 97)—from the time the request was received from the sales department, through more than two years of design and development, to the actual marketing. Although a packaging man and not a physician, Mr. Munson has done graduate work at the Yale School of Medicine and the Long Island College of Medicine, and formerly was medical service director for

Hoffman-LaRoche. He has been with Ciba since 1943.

L. F. Borchardt, as head of the Physics Department of General Mills, directs one of the finest research laboratories in the industry, concerned not only with package development for General Mills' own diverse products, but with the development and application of new materials and machinery for packaging in general. He is expected to discuss General Mills' solution of the packaging of Pyequick, which is regarded as one of the most difficult packaging problems ever tackled in the food industry (see MODERN PACKAGING, Dec., 1946, p. 123).

Carl Sprague, manager of the recently established Package Engineering Dept. of the Sherwin-Williams Co., started as an electrical engineer with General Electric Co.'s Lamp Department, specializing in packaging, and during the war was instrumental in solving unprecedented problems involved in the packaging of electronic fire-control equipment for the B-29 bomber. In 1945 he joined Spiegel, Inc., Chicago mail-order house, in the Packaging Methods Dept.; in 1946 went to Hinde & Dauch Paper Co. as manager of the Packaging Laboratory and in 1947 assumed his present post with Sherwin-Williams. Mr. Sprague will present a check-list for package development and show how it has been applied to a new Sherwin-Williams package.

TUESDAY MORNING

"How Package Design Can Meet the Challenge of Cost and Marketing."

This session will deal not with the abstractions of art work, but with the end result of the designer's work—the efficient and economical reproduction of millions of packages that are functionally sound, as well as eye appealing. Emphasis will be placed on the economies inherent in three-way cooperation between the user, the designer and the package supplier, anticipating costly difficulties which may arise at the production stage. Case histories will point the lesson to top management that package design can be efficient only if it is treated as an important



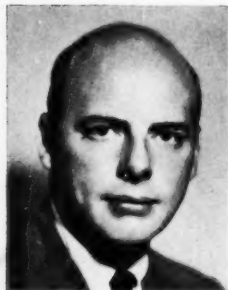
DR. LOUIS B. HOWARD, chairman of Tuesday a. m. session on food packaging, heads Univ. of Illinois Dept. of Food Technology.



H. EARL NACK, chairman of Tuesday p. m. session on drugs and pharmaceuticals, is head of packaging for Sharp & Dohme.

sales-making tool in itself and not as a step-child of the sales and advertising departments. Current market trends affecting package design will be examined.

Chairman *Robert G. Neubauer* is head of Robert G. Neubauer, Inc., package design firm with headquarters at Bridgeport, Conn., and in recent years has established himself as one of the most articulate members of his profession. Seven years as director of package design for McKesson & Robbins gave him an insight into the production problems that follow package design and this experience has made him a leading advocate of production "follow-through" as a part of the design program. His experience covers 20 years altogether, although he has been an independent designer for only the last four years. In addition to numerous drug and toiletry



H. T. HOLBROOK, chairman of Wednesday a. m. session on specifications, headed wartime packaging for Army Ordnance Dept.

packages, he had designed for such firms as General Electric, General Foods, A & P and Union Carbide. A three-times winner of MODERN PACKAGING All-America Awards, he was one of 24 designers chosen for MODERN PACKAGING's 1947-48 cover series on design techniques.

Beaven Mills, art director of the Robert Gair Co., is an authority on design from the viewpoint of the package supplier. He studied art at the University of

Vermont and the New York School of Fine and Applied Arts and before joining Robert Gair was associated with a free-lance package designer and several industrial firms. He will develop what he terms "The Triangulation of Packaging," involving the three-way relationship of designer, user and supplier.

Max Rogers, art director and package designer for Avon Allied Products, Inc., is a graduate of the College of Fine Arts of the University of Syracuse and spent 14 years as designer for a group of box manufacturers. His experience

covers everything from set-up paper boxes to fancy wooden chests.

Frank Coutant represents the market research man's viewpoint on package design. President of Fact Finders, Inc., Mr. Coutant serves over 200 agencies and

manufacturers, and much of his activity is concerned with the measurement of actual sales results achieved by package design or redesign. A veteran of 20 years in 4-A advertising agencies before establishing his own research firm, Mr. Coutant was the first president of the American Marketing Assn.

TUESDAY AFTERNOON

"Food Packaging" (concurrent). A panel of packaging experts from the food field, chairmaned by Dr. Louis B. Howard, head of the Department of Food Technology at the University of Illinois, will develop, out of their own experience, the thesis that the cost of developing a good food package, or the cost of the package itself, is often minor compared to the cost of a package failure.

An outline has been prepared which will be the basis of each speaker's exposition of his own company's method of handling a new package:

1. What requirements were placed on the product by management? (Distribution, package life, form of package, production schedules.)
2. What are the product packaging requirements and how were they determined? (Moisture, free oil, odor, oxygen, loss of leavening, caking.)
3. How was the packaging material selected and what are its characteristics? (WVT rate, grease resistance, odor and gas transmission, strength, packaging machinery handling.)
4. What types of accelerated package tests were made? (Conditions of tests, methods of analysis.)
5. Were field tests used? (How was test run? Do results agree with accelerated tests? Is a field test worth while?)
6. Did the package provide adequate protection in actual marketing?
7. What could be done to improve the package? (Materials, machinery, company organization.)

Dr. Howard is chairman of the Institute's Technical Committee on Foods, which is conducting a continuing study of the packaging characteristics of various types of food products to determine the degree of protection required under typical conditions. One of America's most widely known food technologists, he was, prior to assuming his present post at the University of Illinois, with the United States Department of Agriculture, in charge of industrial and chemical research activities, including the direction of the department's four Regional Research Laboratories where much packaging work has been conducted.

Other members of the panel are *David Carpenter* of P. Duff & Sons (division of American Home Foods), who is an expert in the difficult packaging of prepared mixes; *C. K. Wiesman*, assistant director of research for Armour & Co., who has had long experience in the packaging of fresh and processed meats; *Sam E. Noble*, vice president in charge of production of the Patton Foods Division of Chattanooga Medicine Co., and *Seymour F. Prager*, chief chemist of S. Gumpert Co., Inc., which recently has branched from industrial into con-



PALMER J. LATHROP, chairman of the Wednesday p. m. session on filling and labeling, is president of Cameron Machine Co.

sumer packaging of prepared baking mixes (see MODERN PACKAGING, May, 1949, p. 112).

"Drugs and Pharmaceuticals" (concurrent). This is the traditional separate meeting of drug and pharmaceutical packaging men, which each year provides some of the liveliest discussion of the Institute Forum. Chairman *H. Earl Nack*, head of packaging for Sharp & Dohme, Inc., is also chairman of the Institute's very active Committee on Drugs and Pharmaceuticals and the principal topics at the seminar will be reports on various research studies which the committee has under way. Chairman Nack himself will report on the dropper-assembly standardization project of the committee.

Carl B. Burnside, who is in charge of package develop-

ment for the Eli Lilly Co., will present a progress report on the committee's screw-cap study, illustrated with an exhibit of caps submitted by members of the closure industry.

Fred Bither of the Upjohn Co. will discuss inspection of incoming packaging supplies. The organizational position of the inspection function is so vital to the success of a study of inspection, Mr. Bither believes, that the position itself must be established before comparisons can be made. He will report on the various methods and procedures used in the control of incoming packaging materials as they are currently employed in the industry.

Charles O. Kendall of E. R. Squibb & Sons, who in addition to being chairman (Continued on page 202)

Pre-packagers to discuss formation of an association

Most important item on the agenda for the First National Conference on Pre-Packaging to be held in New York's Commodore Hotel Oct. 24-26, in conjunction with the Packaging Institute Forum, is the plan for formation of an industry trade association. A three-day program of prime interest to pre-packagers and retailers handling pre-packaged fresh fruits and vegetables is being organized, according to William Lee Duvall of E. L. Duvall & Sons, co-chairman of the conference along with Paul B. Dickman of Dickman Farms. The program will be diversified to include subjects of interest to fruit and vegetable people, whatever their particular activity, and to cover phases of pre-packaging at the grower-shipper, terminal and retail levels.

The committee developing the conference program in addition to Mr. Duvall and Mr. Dickman includes Dr. L. V. Burton of Packaging Institute; Ralph David of *Pre-Pack-Age*; Dr. J. S. Wiant of the U. S. Department of Agriculture; Hans M. Hansen of Hans Hansen Co.; E. D. Mallison of Atlantic Commission Co.; Lester Geller of Y-E Newark, Inc.; E. M. Rickel of Union Bag & Paper Corp.; Henry Levkoff of Standard Folding Trays Corp.; Floyd Tompkins of Tompkins Label Service; E. G. Westervelt of Package Machinery Co.; J. C. Van Cleaf of Gaylord Container Corp. and J. A. Anglada of Sylvania Div., American Viscose Corp.

Co-chairman Dickman is the operator of Dickman Farms, Ruskin, Fla., which is one of the largest ship-

ping-point pre-packaging operations in the country. His pre-packaging of fresh corn-on-the-cob was recently discussed in MODERN PACKAGING (July, 1949, p. 102) and has been made the subject of a detailed study and report by the Bureau of Plant Industry, Soils and Agricultural Engineering of the U. S. Department of Agriculture.

The first general meeting will be held on Monday afternoon with the topic, "Materials and Equipment for Pre-packaging." John Baer of Baer Bros., Hagerstown, Md., will act as chairman for a panel discussion which will include as speakers, F. W. Spannagel of Sylvania Div., American Viscose Corp., who will tell of films used in pre-packaging; James Washburne of Chase Bag Co., speaking on mesh and multiwall bags; William F. Jacobi of Union Bag & Paper Corp., on specialty bags (including transparent and paper bags); J. C. Van Cleaf of Gaylord Container Co., on master containers and Walter Farrelly of E. I. du Pont de Nemours & Co., Inc., on packaging equipment.

At the morning session on Tuesday, Mr. Dickman will serve as chairman of a general session at which speakers will cover some physiological aspects of produce packaging and the economics of pre-packaging. Earl Mallison of Atlantic Commission Co. will speak on "What Makes an Acceptable Consumers' Unit." Tuesday afternoon's session will consist of a series of seminars on pre-packaging potatoes and onions, tomatoes, fruits and general-line produce.

On Wednesday, the morning meeting will be devoted to technical subjects, including papers on germicidal treatment of fresh product and plant sanitation and layout (Harold Tennis of Tennis & Schwartz and Dr. Carl R. Fellers, head of food technology at the University of Massachusetts) and problems incident to the handling and transportation of fruits and vegetables after packaging.



PAUL B. DICKMAN



WINDOW CARTON, full-color printed, permits a view of the printed embossed-foil wraps. Back panel of the carton calls attention to the new aluminum foil and parchment laminated wrapper, said to guarantee peak flavor and freshness.

Pre-colored margarine

STANDARD BRANDS' FOIL-WRAPPED QUARTER-POUND PRINTS DEMONSTRATE

NEW OPPORTUNITIES IN PACKAGING AS PRE-COLORING RESTRICTIONS FALL

With 32 of the 48 states permitting the sale of pre-colored oleomargarine as of Oct. 1—and with the prospect that Congress may soon act to remove the heavy federal tax on the pre-colored product—several producers have already introduced yellow margarine in the permitted states in forms of packaging which are new to this field.

When margarine is sold in white form and dumped into a kitchen bowl for mixing with the separate coloring material, there is no point in having anything other than the conventional 1-lb. brick. The introduction of the squeeze-color pouch three years ago was a great improvement, but it is still a 1-lb. print that has to be kneaded to mix in the coloring ingredient, re-shaped

and cut up by the housewife for individual servings.

Now, when margarine can be sold pre-colored, it is obviously desirable to adopt all of the appeal and convenience in the packaging that has been developed. For those who have ventured into marketing of the pre-colored margarine, this usually has meant the packaging of four separate, wrapped, $\frac{1}{4}$ -lb. prints—which can be opened one at a time and sliced off in neat, square individual-serving pats. This and other packaging questions involved in the colored product are of interest to all producers of margarine.

Because the company is one of the biggest factors in the field, the attractive new package just being introduced by Standard Brands is of particular interest. To

take every advantage that convenient, eye-appealing, protective packaging can bring to pre-colored margarine, Standard Brands has launched its yellow Blue Bonnet in 1/4-lb. prints wrapped in laminated aluminum foil, packed four to a flat, square, paperboard window carton.

Blue Bonnet is the first to use a foil wrap for margarine. The advantages of improved package appearance and the additional guarantee to customers of a product at the peak of freshness and flavor are claimed for the new package.

The foil package, of course, is aimed at those users of margarine who are willing, at present, to pay the additional price for the convenience of the colored product—11 cents more per pound than the ordinary bowl-mixed product, including 10 cents federal tax and one cent for the 1/4-lb. print pack. It will not be in competition, at present, with the self-coloring bag pack, which is only three cents more per pound than bowl-mix, until such time as all restrictions may be lifted on colored margarine. Removal of the 10-cent federal tax will, of course, change the whole picture and that is the thing that, from all of the reports, the entire margarine field is anticipating.

The first of the Blue Bonnet foil packages were introduced in test markets in Indianapolis during the summer and in other areas since that time. They will be promoted this fall by large-space newspaper campaigns, intensive radio use, dramatic point-of-sale materials and store demonstrations in new markets. Salesgirls and demonstrators will wear blue bonnets made of aluminum foil as part of the introductory promotions this fall.

The waxed paperboard carton is designed to present the new wrap to greatest advantage. On one side is a die-cut window through which the 1/4-lb. prints are visible. The foil is embossed and attractively printed in blue to provide the utmost in brand identity for each 1/4-lb. print. Half of the surface of the other side of the carton calls attention to the advantages of the new package: "New! Wrapped in Pure Aluminum for Extra Protection."

Like all high-fat foods, margarine may undergo changes in flavor and color due to oxidation if exposed to light for any length of time. Its flavor may be contaminated if it comes in contact with foods or other materials having strong odors. It also undergoes a gradual weight loss and flavor change under long periods of storage.

The aluminum foil wrap used for Blue Bonnet Margarine is a lamination of light-weight parchment to aluminum foil. Extensive tests in Blue Bonnet laboratories in Indianapolis indicated that this aluminum foil wrap preserved color and flavor of margarine and also extended this preservation into the home, where the wrap may be folded to protect remaining portions.

Unsupported aluminum foil wrapping alone would have given this protection, it is said, but it has been laminated to light-weight parchment to facilitate use in high-speed automatic packaging machinery. Con-



FOIL BONNETS will be worn by demonstrators in retail stores during introductory promotion.

ventional weights of parchment would have made the finished wrap too heavy. Therefore, a parchment about one-half the weight of any previous parchment was developed for the lamination of wraps of this type and is said to work perfectly on automatic packaging machinery.

Extensive tests were made to determine the protective properties of the foil wrap for margarine. Samples were wrapped in various materials and subjected to cold storage. Samples were stored in household refrigerators at 40 to 45 deg. F. for 14 days. Room temperature keeping-quality tests were made at 70 deg. F. with relative humidity from 80 to 90% for four to 16 days. Other samples were sealed in large containers in contact with onions, garlic, cantaloupe, cheese, fish and left-over dishes containing various foods for periods of three to seven days.

All tests conducted showed high efficiency for the aluminum foil laminated wrap in maintaining freshness and flavor, retarding loss of weight and preventing contamination from contact with other foods having strong odors. Photographic film was inserted under the various wraps to determine the effect of light on margarine and was said to show less fogging under the aluminum foil wrap, denoting less oxidation of fat.

CREDITS: Foil wrap, Reynolds Metals Co., Richmond, Va. Specially developed light-weight parchment for lamination, Paterson Parchment Paper Co., Bristol, Pa. Cartons, Sutherland Paper Co., Kalamazoo, Mich. Wrapping machines, Lynch Corp., Package Machinery Div., Toledo, Ohio.

BAKERY

THE INDUSTRY IS IMPROVING
ITS PACKAGING, OVERCOMING
TECHNICAL PROBLEMS, AS ITS
COMPETITION GROWS KEENER



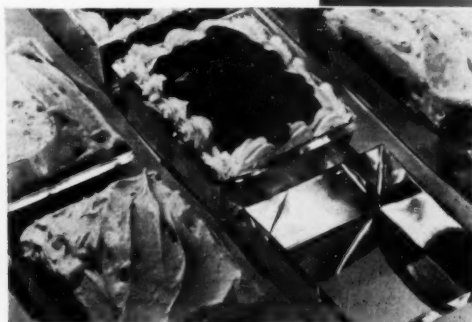
WAXED PAPER is backbone of white-bread packaging. It is least expensive, offers good all-around protection, is excellent for color printing. Trend is to plaids, polka dots. These wraps have new high-gloss wax-resin coatings.



BREAD FORMULA and this exclusive cellophane and waxed paper wrap are offered together, only one baker to a community.



OVERWRAPPED TRAYS and printed cellophane bags such as these attractive Arnold packages make fresh rolls a daily shopping item today.



ALUMINUM TRAY PACK in pint and quart sizes becomes a baking pan for cakes and short-cakes used by Floyd Armistead, Chicago retail baker. Pans eliminate greasing and flouring, provide inexpensive throw-away which consumer does not have to return. They are an innovation for the handling of specialties containing juices.

PIE CARTONING at the rate of 165 per minute is possible on this new machine at Farm Crest Bakeries, Inc. It sets up cartons, imprints pie flavors, fills and delivers packages.



PACKAGING

This year is probably the most important in the last five for the advancement of packaging in the baking industry. There is a growing realization among the country's more than 10,000 wholesale and retail bakers that—in addition to being a protective covering to keep products fresh and clean—today's baked goods package must have the kind of visual appeal that sells goods at the point of sale.

Packaging and product display will be one of the leading topics at the Baking Industry Exposition in Atlantic City, Oct. 15 to 20, where suppliers of many types of packaging materials and equipment will have their latest developments on exhibit. Studies of packaging materials are among the major current research programs of the American Institute of Baking and the Laminated Bakery Package Research Council.

Many factors are contributing to this intensified interest. Wholesale bakers are keenly aware of the need for better packaging to win acceptance among competitors on the store counters. Increasing use of pre-packaged baked goods by the self-service chain stores is spurring independent retail bakers to carry over this practice to their own shops, selling from display samples and doing the pre-packaging on the premises as a time-saving convenience to customers.

The trend to departmentalization of self-service stores, both chain and independent, is making the entire bakery industry realize that it must fight hard to keep its place in the modern food store. According to a study made by the Scott Paper Co., bakery products, including crackers, today occupy 9% of the space in dry grocery sections, ranking third after canned and dried vegetables (10%), soap and other household products (10%). The profit margin on bakery products in a supermarket is 21%, according to *Super Market Merchandising*, surpassed only by fresh produce (24%) and drugs (27.1%). But competition for

store space is growing keener every year. Baked goods are threatened not only by many products such as prepared mixes, baby foods, pet foods, etc., that were virtually non-existent a decade or two ago, but from such growing new departments as frozen foods, pre-packaged meats and produce, which are constantly winning more space in store planning.

Attractive packaging is essential in the light of such studies as the recent Du Pont surveys of consumer buying habits, showing that 40% of all baked-goods sales are decided in the store; that 67% of the cakes and cookies, 53.1% of the rolls, 35% of variety breads and 20% of the white bread are purchased on impulse—decisions made by shoppers after they are in the store and see the baked goods on display.

MODERN PACKAGING has queried a large number of leading bakers, trade associations and the bakery trade press to ascertain current packaging requirements and has questioned suppliers of packaging materials and equipment to find out what they are doing to meet those requirements. The report breaks down into two important factors: (1) trends in package selection and design to meet the essentials of better display and (2) improvements in packaging materials and methods of producing bakery packages.

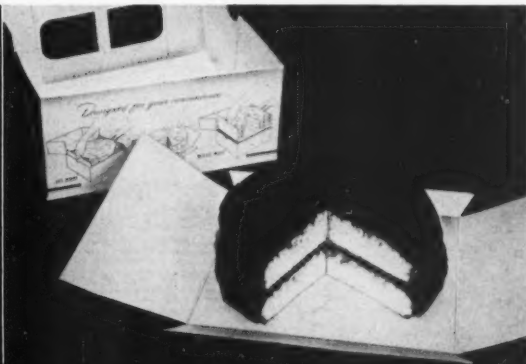
Appearance factors

Desire for more attractive packages is universal. In some quarters it is advocated that baking companies revise their traditional policy of charging all packaging costs to manufacturing expense and assign a portion of the cost to advertising and sales promotion. The desirability of transparent packages through which the consumer can see the product is recognized, and wherever the cost is within practical bounds—the notable exception being white bread—the transparent package is in great demand.

One large Midwestern baker says: "We use cellophane on practically all of our sweet-goods packages. If you can display your merchandise in packages in a transparent wrapper, you certainly have a better chance to get your share of the 67% of impulse sales."

Says George E. Snyder, editor of *Baker's Helper*: "More and more bakers are learning that their wrapper

REMOVABLE TRAY in this laminated window carton adds rigidity to sides of carton, makes cake easy to remove, prevents smudged icing. Unused cake may be put back in carton for storage. Directions for use are printed on box.



can be a useful sales tool. Many bakers are now employing a more judicious use of color. Most new wrappers are being designed to make use of pastels, gingham and other colors which are more attractive to consumers. To me this is a significant trend. Bakers are not relying on the owner, the sales manager and a few salesmen to pick the design and color of a new wrapper. They are getting ideas from clubwomen and other consumers and following their suggestions."

Better board surfaces

Almost unanimously bakers say that the protective function of packaging materials has been greatly improved. Much progress has been made toward the elimination of paperboard odors and tastes, they say, through surface laminations of glassine and waxed papers, and board coatings of new resin compounds.

Some of the largest bakers, including General Baking Co., are using a new coating on bakery trays, particularly for frankfurter and hamburger rolls, which is said to do everything a laminated tray will do at less cost. These coated trays are said to be odorless, moisture resistant and greaseproof. Some of the newer coatings contain Geon polyblend latex (B. F. Goodrich Chemical Co.), which is said to give exceptional grease resistance and moisture protection and to minimize undesirable board odor. Polyethylene (Du Pont Alathon) is used as an additive in a number of new coatings.

A box firm which has made more than a thousand tests of different materials claims it has hit upon a solution for a board coating using a specially developed wax formulation, in conjunction with polyethylene, which is non-toxic, odorless and grease resistant. The coating is said to be sufficiently pliable not to crack or blister and provides complete coverage of the board. Melting points are said to be sufficiently high so that the package will not break down on the heating plates of a wrapping machine.

High-gloss coatings for wraps

The trend in bread wrappings is definitely toward more gloss to give a better quality appearance. New,

harder wax coatings combined with resins are giving new gloss to bread wrappers and other waxed opaque wraps. Several firms are specializing in papers with such coatings. For these also, polyethylene has been found in some cases to be a successful additive, because it improves the gloss and also helps to eliminate heretofore troublesome tackiness of microcrystalline blends. One of the suppliers, who will exhibit a new type wrap at the Bakery Show, says, "We do not make a practice of going overboard about new papers, but if we were inclined to do so, we would hit the water with a mighty big splash this time."

This new coating will provide a very strong seal—so strong you can tear the paper before it will give way. This coating also has exceptional rub resistance, does not readily collect dust, takes printing in the most satisfactory manner and will run on all standard packaging and bread-wrapping machines, requiring only that the thermostats be advanced to higher temperatures than for standard lower-melting-point waxes. It is higher priced than regular waxed paper, but in spite of this many bakers have adopted it and not one, it is said, has gone back to a regular sheet.

Machinery trends

Fighting rising costs, all bakers are interested in packaging equipment which will help them save money. For bread wrapping there is intense interest in wrapping machines with electric-eye registration for more accurate positioning of designs. Many bakers, too, are interested in smaller models where speed is not so much a factor as improved package appearance. Equipment that can be changed over easily for wrapping a large variety of odd sizes and shapes of baked-goods items is also desired, particularly semi-automatic models for short runs. Many bakery products are still packaged by hand because no such equipment is available.

Important strides have been made in cartoning equipment. Of wide interest in mass-production operations is the use of the new automatic forming equipment for lock-tab trays or cartons, which are specially slotted and notched trays or boxes set up on automatic ma-

RECIPE SUGGESTIONS for Muller's Party Snack Rye, printed on back of a three-color cellophane bag wrap, have been a successful sales builder. Company says it has been good door opener for other products in the line.



ACCURATE REGISTRATION is imperative for some of the new wraps such as this one of printed cellophane on enriched white bread. Design must always be positioned on loaf, whereas such accuracy is not required with repeating designs.





PRINTED CELLOPHANE, preferred wrap for specialty breads, will be used even more extensively as bakers introduce new loaves to meet competition. Note use of a bag package for a round loaf of rye bread.



HORIZONTAL design gives new interest to Arnold's Raisin Tea Loaf. Waxed paper and cellophane wrap has been changed to all-cellophane.



PROGRESSIVE DESIGN suggestions for retaining brand identity. At top, bold effect of printed opaque wrap. Next, wide wrap-around band under clear cellophane wrap. Second row, printed cellophane wrap; next to it, a suggestion for off-center treatment when unprinted cellophane is used. Bottom, conventional inside label, which some bakers say does not have sufficient brand impact.

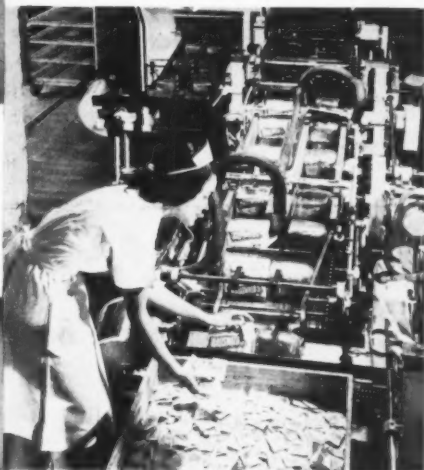
PHOTO COURTESY DU PONT.



BREADS



ZIPPER PACKAGE containing two half-loaves, individually wrapped, then over-wrapped and equipped with tear tape, has gained considerable acceptance. Baby twins on Ce-lect wrap are a big hit in Boston.



FOR CINNAMON TOAST, Hauswald's Bakery slips a heat-sealed glassine packet containing cinnamon and sugar between the two halves of a twin-type bread wrap—a premium feature in Baltimore, where more twin-packs are sold than any other place.

Specialty packages



CORRUGATED pan liner of specially treated paper serves as consumer package, protects product, eliminates greasing and washing of baking pans.



ECONOMY, sales appeal, protection are offered by Town House carton with printed cellophane wrap.



FEMININE APPEAL is achieved by lace design for iced-nut doughnuts. PHOTO, DOUGHNUT CORP. OF AMERICA.



PAPER BASKET with red and white printed cellophane, hand wrapped, is first package for Tiffany Baking Corp. It came out in May. After two weeks, jobbers and brokers were phoning to obtain it. The company expects eventually to produce it automatically.

chines at the rate of 100 per minute and on hand-operated machines at the rate of 20 to 25 per minute. (See "Lock-Tab Tray," MODERN PACKAGING, Oct., 1947, p. 114.)

A striking new development is a cartoning machine for small pies and cakes, capable of handling from 60 to 165 pies per minute, recently installed in the Detroit and Chicago plants of Farm Crest Bakeries, Inc. These automatic machines provide a rigid package which can be stacked and handled conveniently without damaging the contents. The carton used is a conventional tuck type with lock and flaps for protection. The pie or cake may be seen through a rectangular transparent window. In operation, the pies are transferred by hand from baking tins to paper plates and placed in the conveyor buckets of the machine. The machine feeds the cartons from a magazine, but before opening them, prints the pie flavor on the end flap of the carton. This permits inventory of only one type of carton, obviating preprinted carton blanks for each flavor. After the carton is opened, the pies are gently inserted and both ends of the cartons are tucked. The finished packages are discharged to a belt conveyor from which they are removed for subsequent handling.

New high-speed machines for wrapping stacks of cookies with and without cards have had wide acceptance since the war. Until the advent of these machines most items—running into many millions annually—were wrapped and handled by hand.

New cellophane-bag-making machinery which can be operated on the baker's premises is playing an important part. Some of these machines can be equipped with a device for automatically applying thermoplastic labels and also an additional attachment for imprinting or coding the labels.

Coding devices in conjunction with rotary-type bag heat sealers are important in bakery packaging, particularly in large-scale chain operations where close control is kept of product freshness and the older stock is moved first.

A new silicone resin product (DC-7 Compound, Dow



PIES are snacks when put in counter merchandisers that can take their place beside candy bars and other confections.

Corning Corp.) is finding acceptance in bakeries as a useful agent in preventing a build-up of wax and plastic on heat-sealing surfaces of bread-wrapping machinery, causing frequent shut-downs. One bakery has reported it has been able to save eight man-hours a week. Using such compounds, bakers may now package part of their products in waxed paper and immediately change over to cellophane for a different item without stopping to clean wax from the heat-sealing equipment.

Specialties and their requirements

Specialties in baked goods require specialty packaging supplies.

Interesting is the heavy-gauge aluminum foil tray package that can be used as a throw-away baking pan for deep-dish pies and cakes, which formerly had to be baked in tins requiring a deposit. Several firms are reported using these containers very satisfactorily for baking cakes and fruit shortcakes. Also just coming on the market are foil-lined paper pie plates which can be used as baking pans. In the same category is a lithographed tin for fruit cake which is put right in the oven and sold in the same container without transfer. (See "Gift Trends," MODERN PACKAGING, May, 1949, p. 88.)

A firm which specializes in baking-pan liners is making a very attractive one of flexible corrugated material which can be used as a colorful consumer package. Introduced two years ago, such pan liners have won tremendous popularity for all sorts of rolls and sweet goods. They eliminate costly greasing and washing of pans. The same principle has been used for cake liners for many years, but only recently has a liner been produced with the proper coating to give a good bottom bake. The patent-applied-for coating has made baking

and packaging in a liner practical for large wholesale bakers.

Norma Baking Co. of Trenton, N. J., is using a new type of cookie bag comprised of a heavy sheet of printed paper on the outside with an inner laminated sheet of glassine and aluminum foil. This combination, it is said, provides a barrier with excellent moisture protection, prevents breakage of the package by the sharp edges of such items as oatmeal cookies and supplies an interesting printing surface for brand and product promotion. A tin-tie closure permits the housewife to open and reclose the bag, thereby protecting freshness of the contents throughout its use in the home.

For use as a divider or protective pad in boxed assortments of cookies or small cakes, one supplier is offering a very attractive greaseproof embossed parchment sheet. Because of its extreme whiteness and protective qualities, it has many advantages for specialty items and is said to be economical in comparison with similar products of other materials.

Embossed glassines, which come in stock designs or may be made with trademarked designs, are very interesting for interior greaseproof packaging where something more decorative than ordinary waxed paper or glassine is required.

Rolls and sweet goods

One of the most noteworthy trends is the tremendous growth and improved design of printed cellophane over-wrapped-tray packages, window boxes and transparent bags for the packaging of fresh rolls and sweet goods. In years gone by the average household didn't have rolls or cinnamon buns as part of the daily diet unless Mom made them herself or stopped at a bake shop. Now they are almost a daily shopping item in the gro-

The bakers have plenty of tricks in the bag



FREE SAMPLES stimulate the interest of consumers in the product. These packets for Kay's Cookie Co., Memphis, are almost exact miniatures of sales package in center of photo.



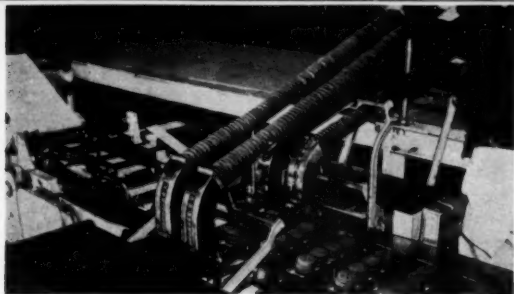
CELLULOSE ACETATE, because of its "breathing" properties, is said to protect the surfaces of these glazed doughnuts.



BACK-TO-BACK packaging provides visibility of upper surfaces of rolls on both sides of bag. Turned-over bottom closure is resealable.



FOIL-LAMINATED cookie bag is moisture barrier; sharp edges of cookies do not cut through bag.



LOOSE COOKIES had to be wrapped by hand until the advent of machines such as this, which will wrap two cookies to 20 cookies on a flat card with label applied. Some models of the machine will wrap single stacks without a card.



STACKED PACK of Nabisco's Fig Newtons, placed three across and two deep, wrapped in printed cellophane makes a more attractive package than the one formerly used, which had the Fig Newtons placed in single file.



OLD AND NEW wraps for one of American Bakeries Co.'s newest packages. The realistic, full-color photography has strong appetite appeal.



PACKAGE DISPLAY is carried right to the consumer's home by these new windowed route trucks adapted by Hauswale's Bakery, Baltimore.

very store, along with the regular shopping—all due to packaging which keeps them fresh and makes them irresistible on the counter.

Bread wrappers

Waxed paper is still the backbone of packaging for white breads, the major volume item of the industry. It is the least expensive and provides an excellent surface for color printing and eye-appealing design, so imperative for this highly competitive field.

More cellophane will be used for breads, however, according to leaders in the field, because increased competition always means more new specialty and premium breads. Cellophane is today the preferred wrap for specialty loaves. Printed glassines as wrappers for specialty breads are being used quite widely in the South and in some Western sections. Serious consideration is being given to greater areas for brand identification on cellophane packages. The ultimate, of course, is a full-color printed cellophane wrap, but sometimes, because of short runs and high cost, this is impractical. Many bakers are studying ways to increase the area of the wrap-around bands to get greater display. Sometimes this can be achieved by placing a slightly wider band off-center, thereby achieving slightly greater area and avoiding the effect of dividing the loaf surface in half.

An interesting design innovation by Red Owl Stores is the placing of printing so the bread may be stacked vertically, reducing the crushing of loaves. (See "Powerful Owl," *MODERN PACKAGING*, Aug., 1949, p. 88.)

The twin-type bread package—two sealed packages in one overwrap, promoted as a means of keeping half the loaf fresh while the other is consumed—has gained wide favor in some areas. Well developed special machinery is available for making this patented pack.

In Baltimore the Schmidt Baking Co., one of the early developers of a twin-type zipper pack, is using somewhat similar equipment for what they call "unit packaging"—half loaves as single-unit packages—for specialty dark breads as well as white.

The argument over relative merits of transparent and opaque bread wraps continues. Each has its

advantages. But it appears more and more definite that for any mass-market bread, on which profits may be figured in fractions of a cent per loaf, cost of the wrap will be the deciding factor.

According to sources in the baking trade, prices based on 120-roll (approximately 5,000-lb.) quantities, figuring a yield of sheets 15 by 18 in., compare roughly as follows:

Printed cellophane	\$9.35	per thousand loaves
Plain cellophane with 3-in. printed paper band	7.55	" " "
Printed plastic-coated glassine	7.00	" " "
Printed opaque waxed paper	4.60	" " "

The new special hard gloss wax coatings add about

10 to 15 cents per thousand loaves to the cost of the printed waxed paper wrap.

On the average, packaging costs for bakery products run about 6 to 7% of total costs, but practically all leaders in the industry say that packaging materials are 40 to 50% higher than they were before the war. This naturally means careful planning to get the best possible package for the money and with the least amount of labor.

In the testing stage

"Hot-wrapped bread" is one of the newer tricks—so new that the company which discovered the method is not yet ready to release details. Through new techniques, this procedure is (Continued on page 200)

Toy vending machine 'sells' penny Hersheys

An ingenious toy and at the same time an unusual promotion for a packaged product is the Hershey Bar Bank, a miniature vending machine from which youngsters can buy their own 1-cent Hershey Milk Chocolate bars. The bank, designed and manufactured by G. Felsenthal & Sons, Inc., Chicago, not only affords a home-supervised source of wholesome candy, but also encourages children to save, inasmuch as they make a "profit" of 5 cents on each 24-bar supply of "bank-sized" Hersheys.

When the last bar has been removed, the metal back of the bank may be unlocked and taken off, permitting removal of the cash drawer and refilling of the two 12-bar vending compartments. Since the refills for the bank sell for 19 cents at retail, sweet-toothed youngsters realize monetary as well as gustatory rewards from its operation.

The bank housing is molded of "toy red" polystyrene plastic, with the working parts and removable coin drawer of clear transparent polystyrene. Windows in the front are pre-printed and cut from extruded polystyrene sheeting, cemented in position.

The completed banks are packed in brown and yellow printed folding cartons carrying an illustration of a boy and girl operating one of the banks. The other side panels list the operating features of the toy and include the Felsenthal name as manufacturer and distributor. The name "Hershey Bar Bank" appears prominently.

Also placed in the carton is a special box containing two dozen of the miniature Hershey bars, which serve as the original supply for the bank. The bars themselves, which in the past have been

available only from standard vending machines, have an inner parchment wrap and the standard printed sleeve-type label. The 24-bar packages will also be sold as refills by department stores and specialty shops handling the banks.

CREDITS: Lustrex polystyrene for bank, Monsanto Chemical Co., Springfield, Mass. Polystyrene sheeting for windows, Plaz Corp., Hartford, Conn. Folding boxes for 24 "bank-sized" Hershey bars, Lebanon Paper Box Co., Inc., Lebanon, Pa. Parent carton for bank and bars, Ace Carton Corp., Chicago. Shipping containers, Stone Container Corp., Chicago.

REFILL of "bank-sized" chocolate bars is packed in carton with bank and also is sold separately.





READING BOTH WAYS, the enlarged labels for Cutter hospital solutions are easy to identify either right-side up on hospital shelf or upside down beside patient's bed. New labels help nurses save time and reduce chances of error.

Life-and-death labels CUTTER'S BOTTLES FOR

INTRAVENOUS SOLUTIONS ARE LABELED FOR QUICK IDENTITY IN ANY POSITION

New labels, designed to give fast, accurate recognition of bottled dextrose and salt solutions used for intravenous infusions, have been adopted by Cutter Laboratories, Berkeley, Calif.

Cutter's hospital solution bottles—named Safti-flask and Saftifuge—are among the most distinctive used (each manufacturer can be identified by the private-mold flasks in which his solutions are bottled), but until recently the company gave little consideration to making its labels equally distinctive. Now color and enlarged, easy-to-read type faces have been added to the labels to help busy nurses save time in picking out the correct bottle on dispensary shelves and to reduce the chances of an error in administration, which might be fatal.

The company has also modernized the design and construction of its shipping cartons for the hospital

solutions, at the same time effecting a 4% saving in the cost of the cartons.

The first step in redesigning the labels of the hospital solution bottles was to enlarge them so that more space could be given to product identification. Roughly two-thirds of the label area is blocked off for printing basic information—solution name, amount, maker's name and address—in big, bold, sans serif lettering. In the remaining one-third, the secondary information is enumerated in concise order.

Not only is the newly redesigned label free from "clutter," but it is functionally organized down to the very last detail.

For example, one feature of the labels for saline solutions is the printing of the name upside down on one part of the label. While the product name appears most prominently in a white front panel right-side up, it is

also printed in the other position on the side panel along with directions for use, ingredients, etc. This dual arrangement serves two practical purposes: it permits a nurse (1) to identify the bottle while it is inverted during an actual infusion and (2) to see the name and read the directions while she makes the necessary check on the clarity of the solution at the time the bottle is taken off the dispensary shelf.

The same functional organization of label information is apparent on the new label for Cutter's A-C-D (Acid Citrate Dextrose) solution, which permits blood to be preserved up to 28 days. It is important that the A-C-D label contain sufficient space for the nurse to write in the name of the donor, type of blood, date of donation and other information. The greater part of the old label was allocated to this information, leaving only a small area for the solution name and manufacturer's identification. On the new labels, space for this information has been shifted to the side panel and the design treatment of the front panel follows that of the other dextrose and salt solution labels.

Color on the labels not only gives eye appeal, but identifies the types of solutions. Blue is the background color for I. V. solutions, while red is used to identify all the solutions in Cutter's blood line. Except for the Cutter name printed in reverse in the bottom border of the label, all the lettering is printed in black.

New corrugated cartons for shipping the hospital solutions are designed to meet the latest packaging specifications of the Armed Forces and the same carton construction is used as the outer package for civilian shipments.

Modernization of surface design and construction changes which allow a 4% saving in cost per carton have been achieved with greater protection of the contents, according to the company.

Briefly, the old cartons were made with all flaps meeting in the center. Single-wall case liners and bottom pads were used and bottles were individually wrapped with flexible corrugated paper. The new style shipping containers have a conventional slot opening with short inner end-flaps. Instead of being wrapped with corrugated, the bottles are now protected by slotted dividers. They are protected top and bottom with pads. Double-wall case liners give further protection.

First reports from hospitals receiving the solutions with the new labels indicate that they are meeting with an enthusiastic reception by nursing staffs, according to the company.

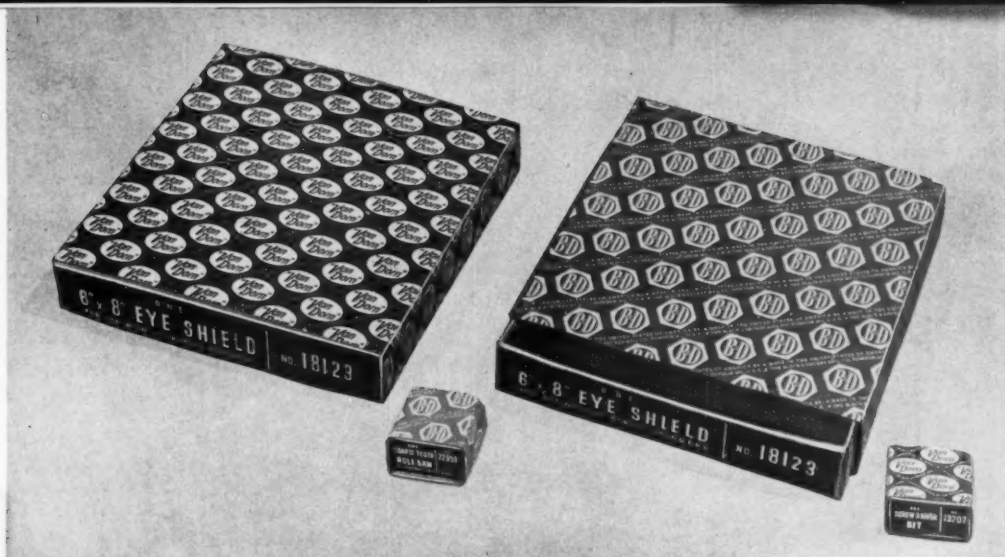
CREDITS: Labels, Tam Gibbs Co., Berkeley, Calif. Bottles and shipping containers, Owens-Illinois Glass Co. (Oakland, Calif., office), Toledo, Ohio. Closures, Aluminum Seal Co., Richmond, Ind.

CONTRAST is especially apparent between old and new A-B-D solution. Larger label provides ample space for donor's name, blood type, etc. Background color distinguishes I.V. from blood solutions.



SHIPPING CONTAINERS have improved surface identity, are designed (even for civilian use) to meet the latest Armed Forces specifications.





TRAY AND SLEEVE package allows perfect interchangeability between company's two brands. Folding tray with double-glued side walls is identical for same product sold under two brand names; simple, legible end label carries no brand identification. Printed sleeves with all-over trademark designs carry whole burden of brand and company identification, and size of elements is calculated so that a single plate for each brand prints largest and smallest packages.

Plan and result

BLACK & DECKER'S 4-YEAR STUDY PRODUCES POWERFUL INDUSTRIAL PACKAGES

SO EFFICIENTLY PLANNED THAT 17 PACKAGES REPLACE 177

Industrial packaging, by and large, still is not noted for either beauty or proficiency. There has never been the motivation of hot, point-of-sale competition in this field that exists, for instance, in the food field. Industrial products are not purchased by shoppers on impulse. However, numerous examples in recent years have proved that carefully evaluated package design can play an important part in selling industrial products and cutting packaging costs.

This was the thinking that led The Black & Decker Mfg. Co., Towson, Md., a leading manufacturer of industrial tools and accessories, to set up, nearly four years ago, a Packaging Committee that was—and is—a model of packaging organization.* This committee was made up of the advertising manager as chairman; the assistant production manager, in charge of the physical operation of packaging; the traffic manager, who controls finished stock and shipping; the chief engineer, who is responsible for the design of products and the specifications for packages and labels, and an engineering assistant to detail specifications. The

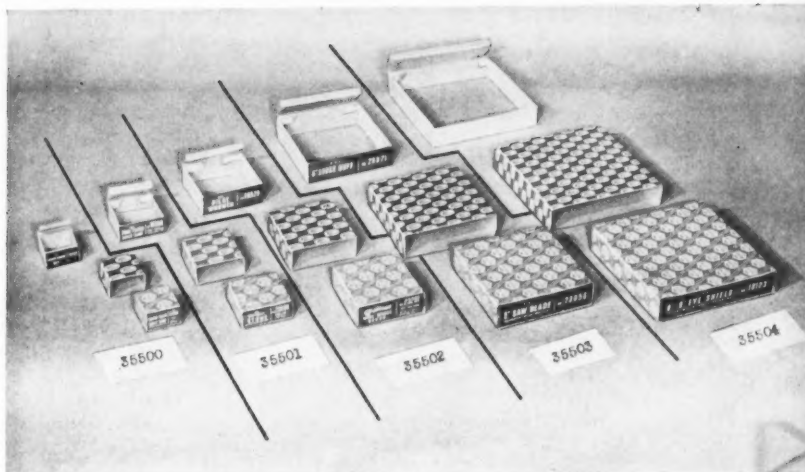
committee was charged specifically with (1) standardization of labeling and (2) improvement and simplification of packaging throughout the line.

The committee's report to management was an eye-opener. The packaging of accessory items in particular, in the words of J. F. Apsey, committee chairman and advertising manager, had been "inadequate, unsightly and incommensurate with the quantity of the product and the reputation of the company." Furthermore, it was also a fact, although not quite so evident,



* See "Committee Approach to Industrial Packaging," MODERN PACKAGING, April, 1946, p. 130.

INTERCHANGEABILITY of brand through change of sleeve is illustrated by these groupings, showing also how the same sleeves are used for different products utilizing the same-sized tray. Note how the folding construction of the tray gives it extra strength at the corners.



according to the report, "that our old method of packaging was actually costly, in that it failed to protect contents, permitting damage, which increased costly adjustments, encouraged pilferage, discouraged the merchandising of unattractive (damaged) items and frequently required repackaging before the package could be delivered to the customer."

Some packaging improvements were made immediately early in 1946, but it was realized that the complete program for the accessories line would require long, coordinated effort. The committee was authorized to employ outside design counsel to work with the committee in proposing changes—to insure the adequacy of such changes and to perform the actual design work—and to appoint a Packaging Coordinator within the company who is charged with over-all supervision of the packaging program and integration of the various activities involved.

Procedure

In approaching the over-all program, it was found that the considerations of four different groups would have to be taken into account:

1. *The consumer*, who must receive an impression of

precision and quality of the product, well protected.

2. *The distributor and his employees*, who are conscious of the merchandising effectiveness of good packaging, as well as receptive to package features that make the stock-handling job easier.

3. *The Black & Decker organization*, which would respond to attractive and practical packaging with sales enthusiasm.

4. *The stockholders*, who are sensitive to sales volume and production costs.

Involved in all package considerations, also, was the fact that practically all Black & Decker products are marketed under two different trade names: "Black & Decker" and "Van Dorn." The way in which this problem was solved, by restricting the trade-name identification to sleeves, is most interesting.

Seven major objectives were set before the committee. The results can best be studied by outlining these objectives and the means by which each was achieved.

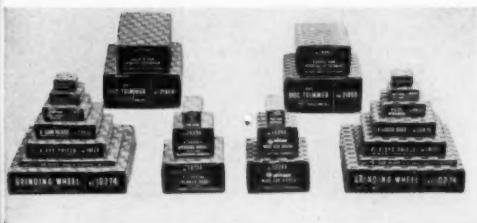
1. **To improve the physical strength of the packages.** Existing packages were of varied types, mostly reverse-tuck folding cartons, but including also straight-tuck, set-up telescoping lid and tray, and stapled and taped corrugated cartons. With the exception of the tape-sealed corrugated cartons, none of these varieties had satisfactory locks and the contents frequently broke out of the package during normal shipping and handling. Tape-sealed cartons did not permit customer inspection of contents. Corner strength of most of the old packages was grossly inadequate.

COLOR DISTINCTION, using traditional colors of the two brands, helps differentiate brands. Each is a single-color run. Samples of sleeve designs are reproduced here in exact colors and exact size used on all packages, large and small.





OLD PACKAGES were bad actors on stock shelves, heavy items often beating their way out of boxes. End labels were illegible 3 ft. away.



CONTRAST THE NEW packages, with the bold, clear labels stressing catalog number and simplest product identification, plus the strength of double-wall trays and reinforcing sleeves.

NEW



OLD



TRADEMARK CLEAN-UP is illustrated by new and old Van Dorn comparison. The old Van Dorn script became virtually illegible at a distance.

quate; many collapsed during initial stacking in manufacturers' stock before shipping.

On the question of physical strength, all possible types of packages were studied, samples made and tested. Several showed adequate strength, but when other problems peculiar to the Black & Decker operation were taken into consideration, the tray-and-sleeve type was the unanimous choice. A tray with double-glued side walls was found to provide a high degree of corner strength and resistance to crushing and it had these advantages which seemed important to Black & Decker: it is a folding construction delivered flat and requiring no set-up machinery; it provides a neat, unobstructed end for labeling; it can easily be procured from many sources and the glued sleeve which completes the package serves the double purpose of adding strength by providing a tension strap around the tray and permitting easy interchangeability of the two brand names.

2. **To improve and standardize the labeling** as to design, arrangement and legibility. Once it was decided that the sleeve would carry the brand name and the tray end label the catalog numbers and product information, it was imperative to gain as much space as possible for the latter information. Not only brand name but also the company name and address were boldly omitted from the end labels, permitting increased size and legibility for catalog number, quantity, name of the item, size designation, etc.

Since accessory items are identified and selected by catalog number, this element was made larger than any other and placed either top center or to the right on the label, with a minimum of distracting copy. It is separated from all other copy on the label by a ruled line. Since numerals are used for the catalog designation, it was considered desirable, to avoid confusion, to spell out the quantity designation, as "One," "Six," etc. Ample provision is made on each label for the name of the item in clear display type, including, where required, such secondary trade-name designation as "Vibro-Centric" or "Whirlwind." All labels are printed in a single dark reddish brown in reverse, for utmost legibility under poor stockroom lighting conditions and good harmony with both sleeve colors.

3. **To emphasize brand identification** through package design. Having eliminated trademarks and company name from the end labels, it was obviously important that these elements be given strong display elsewhere. It was decided to make them the basis of a "step-and-repeat" all-over decorative pattern for the sleeve, this design offering the greatest opportunity for repetition and dominant visibility of the trade name, eliminating at one stroke the necessity of separate printing plates and press runs for each package and allowing a wide choice of production methods to the box manufacturer. Since the sleeve is printed in one color only, only one printing plate is required for each of the two brands for all package sizes.

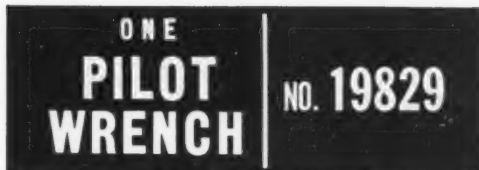
The step-and-repeat designs were carefully planned. They have a neatness that expresses the qualities of

precision and dependability of the products and at the same time they are sufficiently different from competitive packages to provide instant brand recognition. The size of the basic unit of the all-over pattern was based on the requirement that (a) it appear uninterrupted at least once on the smallest package and (b) appear sufficiently large on the largest packages. Color distinction between the Black & Decker and Van Dorn brands was essential; this was achieved and a tie-up with the old packages provided by retaining the old basic colors of orange for Black & Decker and green for Van Dorn.

4. **To develop interchangeable packages.** This objective was readily achieved by the basic decision to remove all brand identification from end labels and concentrate it on the interchangeable sleeves. All trays and end labels are the same for Black & Decker and Van Dorn brands for any given item. This means that, instead of ordering and stocking separate trays and/or separate end labels for the two brands, important economy results from consolidating orders for trays and end labels and, at the same time, a Black & Decker sleeve can readily be exchanged for a Van Dorn sleeve, or vice versa, on the same tray, should a need arise in filling orders. This also operates to reduce the minimum requirements of duplicate stock of identical items carried by the manufacturer—another contribution to economy.

5. **To improve the identity and legibility of trademarks.** The designer had the task of adapting existing trademarks to the step-and-repeat design without changing any of the familiar basic elements, but rather, through judicious simplification of existing elements, heightening and quickening recognition in keeping with the best principles of modern trademark design.

The only major change in the Black & Decker mark was to remove the address and enlarge the "B & D" within the well-known hex-circle shape. The address was unnecessary in the trademark itself, since it could be worked in elsewhere as part of the repetitive design. The old Van Dorn mark was good except for the script word "Van Dorn," which even in large sizes was not quickly legible. The oval shape of the old Van Dorn

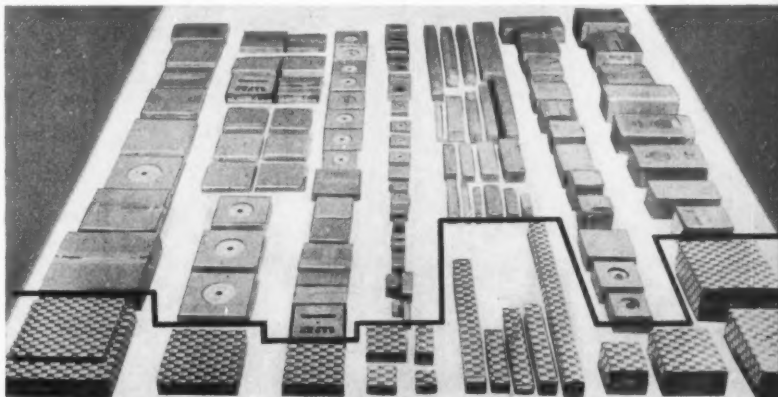


LABEL IMPROVEMENT and simplification is striking. One starkly simple white-on-brown label at top replaces two old-fashioned ones below.

mark was retained, but an upper and lower case, modern lettering in two lines was substituted, making maximum use of the oval space. This letter retains the slant of the old script letter, but legibility is increased 100% and a certain rigid and clean-cut quality is conveyed.

6. **To work out identifying color schemes.** While orange had been the identifying color for Black & Decker and green for Van Dorn, there had been considerable variation in hue and intensity. Having determined that the sleeves for each brand would carry a pattern of one printed color, it was necessary to choose between the predominant white of the board or a predominance of the printed color. The latter alternative—the design to appear in white reverse against color—was adopted to minimize soiling. In each case, a color was needed that would have enough brilliance

ECONOMY is apparent in this group comparison of old and new packages. Seventeen new packages (foreground, color overline) replaces 177 old ones of varying construction. Ordering is simplified, costs cut and plant storage space for packaging drastically reduced with adoption of new folding packages.



and intensity to stand out well, while at the same time be dark enough to contrast sharply with the white. The orange and green shades finally selected were chosen by testing a great number of each and actually running off proofs of the design in these colors. Fade-proof inks are specified, so that older packages on the shelf will retain the same color as new ones, and an overprint of varnish is used.

7. **To reduce the number of different packages required.** The number of packages formerly used for boxing the accessory line was 177, of different sizes and shapes. The purchase of so many different boxes, in tremendously varying quantities of each size, made each box cost more than it should. The new program

has resulted in a reduction of the number of packages required for the accessories in the ratio of approximately 10 to 1.

Typical is Group A of the accessories list, covering 599 products that are among the highest in volume of production, including hole saws, Vibro-Centric stones, stone sleeves and screw-driver bits. Formerly 55 different boxes were required; now the 599 items are handled in exactly four of the new-type packages. The greatest single consolidation is in the smallest box, which replaces eight others and packs 219 items with total requirements of 340,000 units per year.

The new packages, throughout the various groups of products, fall into the size (Continued on page 192)

Trap-door ventilation for pre-packaged produce

DiMare Bros., Boston, Mass., tomato repackers, are among the first to adopt a new "trap-door" perforated, printed cellophane which may have considerable interest for produce pre-packaging in general.

The perforations, consisting of a series of very tiny, thin, horse-shoe-shaped die cuts—about $\frac{1}{16}$ in. across—down the center of the overwrapping roll stock (or down the side plies of the bags) are made on special machinery by the cellophane converter who originated the idea. The theory is that because the cellophane is relatively stiff and springy, the series of tiny "trap doors" normally remain closed. However, they are said to respond to pressure of CO₂ gas from within the produce package, with the base of the semi-circular cuts serving as the "hinge" on which the "trap door" swings outward just enough to release the gas, at the same time allowing fresh

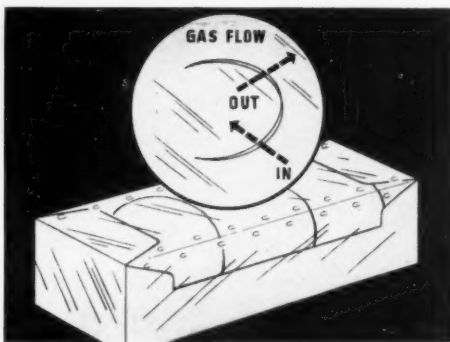
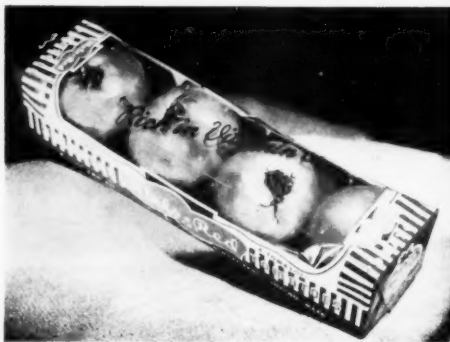
air to enter the package. An advantage of the perforations over the punched-out type is that stems and leaves cannot cause tearing by getting caught in them.

It is reported that moistureproof properties of the cellophane are scarcely affected and that there is very little localized dehydration, since the flaps are usually in the closed position.

Operations to date on machine wrapping, shipping and handling show that the strength of the "trap-door" perforated cellophane is entirely adequate, it is reported.

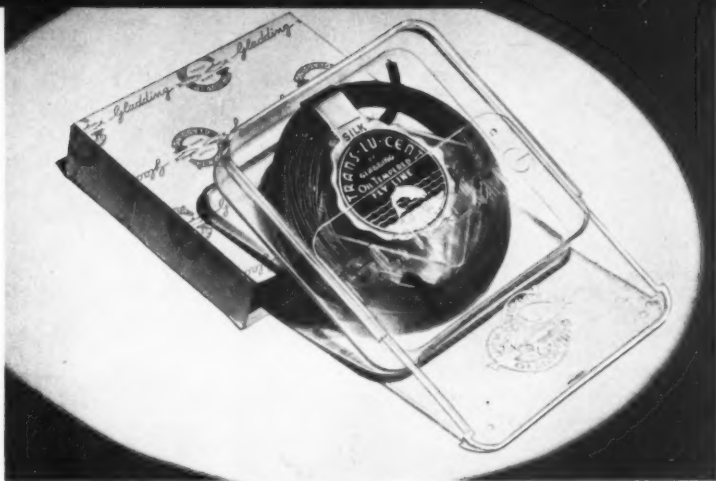
Perforation is said to add nothing to the cost of the material, which is reported to be less expensive for the packager than special films which have inherent "breathing" qualities.

CREDIT: Perforated cellophane developed and supplied by The Dobeckman Co., Cleveland, Ohio.



VENTILATED cellophane overwrap for pre-packaged tomatoes has a number of minute "trap-door" perforations, so tiny they are almost invisible, which allow package to "breathe." Sketch of flap shows principle.

RE-USABLE BOX for fishing lines with special sliding cover is of clear polystyrene with molded-in trademark. Cover has "breather" holes so that it can serve as a live-bait box. The sleeve is of cream-colored paperboard, with printing in gold.



Fisherman's delight

SLIDE-COVER PLASTIC PACKAGE FOR

LINES GIVES THE ANGLER A HANDY, TRANSPARENT, POCKET BAIT BOX

Sliding covers and a novel two-in-one, break-apart package are the unusual features of the new eye-appealing transparent plastic boxes adopted for fishing lines manufactured by the B. F. Gladding Co., Inc., South Otselic, N. Y.

The sliding-cover box is bound to appeal to fishermen because of its obvious re-use value as a convenient, pocket-sized container for flies, plugs, leaders and lures. And, in the case of the box for the Gladding fly line, the sliding cover even has "breather" holes so that it can be used to hold live bait.

The company packages its Invincible (silk and nylon), Blue Ribbon (silk) and Dauntless (nylon) bait-casting lines, as well as all of its tapered fly lines, in the new boxes which are molded of clear polystyrene—a material resistant to water and chemicals.

The two-part bait-casting line package is of particular interest because of the novel way it solves the problem of

how to give the purchaser a single 50-yd. spool while still encouraging the purchase of two spools at a time. The package is actually two of the plastic boxes hinged together, with each box containing its spool of line still connected to the other. The two boxes are easily separated by merely snapping them apart at the hinges and cutting the line.

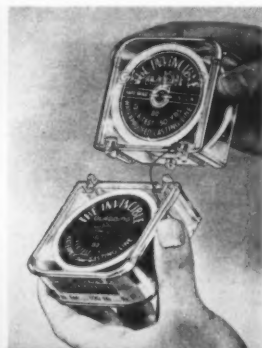
On all of the new packages the sliding cover fits smoothly into a track that is ingeniously molded at the edge of the side walls, the groove starting just beyond the rounded corners of the box as a sort of shallow ledge under the wall rim. A small depression in the top provides a simple means for pulling the cover back.

The Gladding name and trademark are molded into the slide cover for continued company identification when the box is re-used, but no label is necessary since all the product information is printed right on the spools of the bait-casting lines and on the wrap-around tab

label of the fly lines. However, a small loose label inside one end of the bait-casting package identifies the line when the boxes are on stock shelves.

Cream-colored paperboard sleeves printed in gold protect the boxes for shipment.

TWO-PART PACKAGE for the bait-casting lines consists of two boxes hinged together, each box containing a 50-yd. spool with the line connected. Boxes snap apart at the hinges (right), giving the purchaser of a single spool a complete package.



CREDITS: Boxes molded by Westplex Corp., Rochester, N. Y., using Bakelite and Dow polystyrene. Paperboard sleeve, E. E. Fairchild Corp., Rochester, N. Y.



DESIGN



Transparent premium package

Companies seeking a different and economical way of premium packaging may get an idea from this novel and eye-appealing package adopted by J. H. Filbert, Inc., Baltimore, Md., to show off the attractive glass tumblers offered as the premium with pint-sized jars of Mrs. Filbert's brand mayonnaise and salad dressing.

The company felt it was essential that the premium have maximum visibility in the package to assure prominent mass display on dealers' shelves. To fulfill this requirement, the company chose a transparent cellophane bag which is slipped over the pint-sized jars with the tumbler stacked on the jar top. The words, "Gift Tumbler," printed in bold letters on the bag as the headline for the rest of the copy, are positioned right against the tumbler, letting the purchaser know immediately that it is free. A postcard enclosed asks the purchaser for suggestions on improving the products.

CREDITS: Bag, Shellmar Products Corp., Mt. Vernon, Ohio. Jar, cap and tumbler, Anchor Hocking Glass Corp., Lancaster, Ohio.



Shaker top jar

In its current campaign to win a permanent place for Ac'cent (mono sodium glutamate) on the home cupboard as well as in the kitchens of leading hotels and restaurants, the Amino Products Div. of International Minerals & Chemical Corp. has introduced this new 4-oz. glass shaker package and counter sales unit. The refillable jars are provided with bright red plastic shaker tops and covers and quarter-teaspoon measuring spoons shaped like a musical note to tie in with the advertising theme, "Makes food flavors sing." Metal canister refills, in red and silver, come in 4-oz. and 1-lb. sizes and have an inner seal for added product protection. On the display carton, a die-cut oval calls attention to the availability of the refills.

CREDITS: Design, C. S. Macnair & Associates, Robert Phillips and Paul M. Sell, Chicago. Glass jars, Hazel-Atlas Glass Co., Wheeling, W. Va. Ceramic decorating, W. Braun Co., Chicago. Molded cellulose acetate (Tennessee Eastman's Tenite) shaker tops, Federal Tool Corp., Chicago. Lithographed canisters, J. L. Clark Mfg. Co., Rockford, Ill. Display cartons, Yates Carton Corp., Chicago.

HISTORIES

Pouring spout on corrugated shipping carton

A dual-purpose bellows closure ingeniously designed so that when it is opened it forms a pouring spout is the feature of the corrugated shipping carton used by Consolidated Cork Corp., Brooklyn, manufacturer of crown closures. This unique construction permits the bottle caps to be poured directly into bottling-equipment hoppers. Previously, the crowns had to be transferred from the shipping carton to a pail or other container for pouring. The bellows is constructed as an integral part of the carton top and in its closed, collapsed position fits snugly against the top ready for taping, making a dustproof seal. The carton can be opened and resealed readily. Stacking qualities are good, since a glued liner is incorporated in the box design to give wall strength. To prevent distortion of bottle caps because of corner failures, diagonal folds are made in the carton cover for further strengthening.

CREDIT: Carton designed and manufactured by Union Bag & Paper Corp., New York.



"Honey bear" labels

The age-old association of bears with honey offers an effective package-merchandising theme for R. D. Bradshaw & Sons, honey producers at Wendell, Idaho. An eye-appealing, four-color illustration on the label of Papa, Mama and Baby Bear gives pictorial emphasis to the new brand name, "Bradshaw's 3-Bears Honey." A survey of the size preferences for honey packages made before the package was redesigned resulted in reducing the weights to 24, 12 and 8 ounces, replacing former one- and two-pound jars. On the label the sizes are appropriately identified as "Papa Bear Size," "Mama Bear Size" and "Baby Bear Size" in the sell copy below the name. A further tie-in is the premium offer on the jar cap for an illustrated story book of "Goldilocks and the Three Bears," for 25 cents and a jar cap. The private-mold jar is designed to reflect the golden shade of the honey to best advantage.

CREDITS: Labels, Ridgway Lithograph Co., Seattle. Jars, Northwestern Glass Co., Seattle.





SELF-SPRAYING Spray-O-Namel can achieve the goal which paint manufacturers have been seeking ever since the pressurized can became a practical package form. Modifications of both product and spray valve were required. Now seven Spray-O-Namel colors are available with the appeal of "No brush—no mess—just press a button and paint like a professional" on the label copy.

Pressurized paint

ILLINOIS BRONZE IS FIRST WITH THE AEROSOL PACKAGE

THAT MAY OUTMODE THE PAINT BRUSH IN HOUSEHOLD APPLICATIONS

There's good news at last for the frustrated amateur painter to whom the simplest household decorating job means a nightmare of brush cleaning, prying off stubborn can lids and tiresome paint mixing—not to mention brush marks which often mar the final job. A Chicago paint supplier has just announced a new line of enamels and metallic finishes which are sprayed directly from the self-powered aerosol type of can.

Spray-O-Namel is the result of more than two years' experimental work by Illinois Bronze Powder Co., for more than 50 years manufacturers of aluminum paints, bronze powder and a line of high-quality lacquers and enamels for the industrial trade. Although a variety of products has appeared in aerosol-type containers within the past year or so,* Spray-O-Namel

is believed to be the first line of paints so packaged actually to reach the market. Trade reports have it that a number of other paint manufacturers are now working at top speed on similar pressurized containers. Before long, it is believed, the push-button container will become a potent new factor in the packaging of small quantities of paint and products of a similar nature.

One of the first things discovered by Illinois Bronze in pioneering this field was that standard types of paint just wouldn't work in an aerosol package. Unlike most of the products which have been placed in such containers, paint consists of a vehicle in combination with pigment—a product which tends to clog the minute orifice of the spray valve. Before paint could be successfully packaged in this manner, the product itself

* See "Pressurized Packages," MODERN PACKAGING, Aug., 1949, p. 110.

had to be specially formulated to overcome this problem.

"In other words," reports Robert Rothschild, advertising manager of the company, "we had to adapt the product to the container, rather than vice versa." The Illbronze sprayable finishes, based on an alkyd-type resin, pass through the nozzle without clogging and dry to a hard finish in less than an hour, providing a smooth, uniform coating which is flexible and durable, it is claimed.

Handling the new aerosol-type paint can is simplicity itself. First the user shakes the can a few times, agitating the enamel by means of a mixing arrangement sealed within the container. Then he removes the white-enameled friction lid which protects the valve against accidental release and holds the nozzle about 8 to 10 in. from the object to be painted, pressing the rubber release button which controls the valve. As the paint emerges in a fine spray, the can is directed gently from side to side to insure even distribution of the finish. The container operates with equal effectiveness whether the spray is aimed upward, horizontally or downward, covering surfaces with amazing speed. Painting irregular or hard-to-reach objects such as radiators, a task requiring considerable time with the usual brush technique, takes only a few minutes with the pressurized container.

Spray-O-Namel is offered in seven colors—aluminum finish, white, black, Chinese red, garden green, canary yellow and light blue. Containing 12 fluid ounces each, the cans retail at \$1.79 for the aluminum finish and \$1.89 each for the other colors. Direct cost comparisons with regular canned paint do not reveal the true economy of Spray-O-Namel; such factors as cost of brush, turpentine, waste from dripping and evaporation, etc., must also be considered.

There is, of course, no evaporation loss from the aerosol package, which continues to function until completely exhausted. Contents of the aluminum-paint container, for example, will cover an area as large as 10 by 15 ft. in size. In addition to its convenience, the aerosol container is actually safer to use

than an open paint can because in the former the paint is sealed off by the valve instead of being exposed to air.

Freon, introduced into the container at low temperature in liquid form, supplies the propulsive force for Spray-O-Namel. The necessary valve modifications for the package, filling procedure and other technical details involved in adapting the aerosol-type can to paint were worked out by Illinois Bronze. The company declines to disclose the nature of the valve changes.

An identical label, printed in black and yellow, is used for all seven colors, except that in each instance the name of the hue is printed on the label in ink of that color. The label design features an illustration of the container in use, with product name in prominent letters against an emerging cloud of spray. Detailed product and direction copy appear on the back panel of the label, with company name and logotype in reverse white against a black band encircling the bottom of the label and "sell" copy just above it: "No brush—no mess—just press a button and paint like a professional."

The Spray-O-Namel containers are packed a dozen to an attractive corrugated shipping carton which, due to its ingenious construction, doubles as a counter sales unit. Similar in function to a container recently adopted by Illinois Bronze for regular pint cans of aluminum paint, the unit is made in two parts, with the top face cut off at an angle and hinged to the body of the box so that it can be folded back to convert it into a counter sales carton.

Illbronze is introducing Spray-O-Namel with a powerful advertising campaign featuring window posters and counter cards, newspaper mats, insertions in trade media and heavy direct mail promotion. The product will be distributed primarily through jobbers and will be sold at retail in hardware and paint stores, department stores and possibly drug outlets and grocery stores.

CREDITS: Low-pressure aerosol containers, Continental Can Co., Inc., New York. Labels, Ezrello Press, Inc., Chicago. Combination shipping and display container, Stone Container Corp., Chicago.

SHIPPING-DISPLAY container of printed corrugated is readily cut and folded back to form a counter merchandiser for a dozen cans. Printed in red and yellow, container highlights convenience of no-brush painting. Use instructions are continued to back panel of can label. White enameled friction lid protects valve prior to use.



TENTH OF A SERIES



On this month's cover...

OLD DUTCH CLEANSER

NOMINATED FOR PACKAGING'S

HALL OF FAME BECAUSE:

- For 44 years the energetic trademark has chased dirt around the world, becoming a symbol for "cleaning up" everything from the kitchen sink to the Axis
- The package originated the metal-end sifter can, now standard in its field
- The company was an early and consistent user of scientific market research
- The label was so soundly conceived that it has required no basic change in nearly half a century

Many a manufacturer has dreamed of the day when his trade name would attain the status of a household word. With Old Dutch Cleanser, The Cudahy Packing Co. long ago saw that dream become a reality.

The distinctive Old Dutch girl, whose familiar silhouette has appeared on hundreds of millions of cans of cleanser during the past 44 years and whose likeness has grown synonymous with "cleaning up" everything from grease-encrusted pans to the Axis, has never once shown her face from behind the quaint Dutch bonnet. But in terms of trademark recognition, she has shown her heels to many. On that fact, plus a number of "firsts" which establish it as a pioneer package, rests the nomination of the Old Dutch Cleanser composite can for our suggested Hall of Fame of packaging.

Old Dutch blazed a number of new trails. It was the first household cleanser marketed in convenient powder form and first to adopt the composite paper-metal, shaker-top canister, which nearly half a century later continues to be universally favored for this type of product. In addition, it was one of the first products to utilize marketing research as a guide to product improvement and promotion, as well as one of the earliest to employ varnished labels for increased merchandising appeal and package protection.

The fundamental soundness of the Old Dutch package is attested by the fact that its basic construction has been retained without change for nearly half a century. The label has been progressively altered to meet changing merchandising conditions and underwent a rather extensive redesign about 20 years ago—described by the company as essentially a "cleaning up" process. Its identity was in no way diminished by this activity, however, and today the Old Dutch Cleanser package is as recognizable in its 1905 label as in its current dress. The sturdy figure of the little Dutch girl remains fundamentally unchanged.

Origin of product and package

Fifty years ago, it was not unusual to find meat-packing companies producing supplementary products which bore little direct relation to meat and the usual by-products. In its search for new selling opportunities, The Cudahy Packing Co. viewed the scouring bricks then on the market as something that could be improved upon and set out to develop an all-purpose powdered household cleanser.

Originally put out under the name of Gibson Soap Polish, this cleanser consisted essentially of a combination of selected volcanic ash, from deposits discovered in Nebraska, and a grease-dissolving agent which permitted the flat particles of ash to loosen deposited dirt more readily. In preliminary market tests, the product was favorably received by housewives, but Cudahy officials—particularly E. A. Cudahy, Sr., founder of the company, and E. A. Strauss, who later became vice president—saw the need for further improvement.

Continued work in the laboratory led to important

CURRENT



1930



1905



FROM THE TIME the trademark was lifted bodily from an old picture frame, Old Dutch label has changed only by refinement of lettering and details. Principal change from original 1905 label was made in 1930, when name panel was shifted to bottom, colors brightened, tulips omitted, typography modernized. There has been no essential change in shaker-top, metal-end fibre can, originated with this product.

improvements in the product, with "Seismotite"—Cudahy's registered name for a superior grade of volcanic ash—retained as the essential ingredient. Simultaneously, Cudahy officials decided that Gibson Soap Polish lacked punch as a product name.

In Mr. Strauss' Omaha home in 1904 hung a small painting of a Dutch boy and girl, produced by an obscure artist. The exact origin of the picture remains unknown and it has no unusual attributes as a work of art; yet today that picture, gracing the office of E. A. Cudahy, Jr., company chairman, has a value that would be difficult to estimate. For from its simple wooden frame came the dominant element of Cudahy's new package, as well as the idea for a new product name which was to make merchandising history.

In the lower left corner of the wood frame was the raised, silhouetted figure of a little Dutch girl with upraised stick, pursuing a frightened goose. Molded

in colored plaster, the humorous little scene stood out in bold relief against the frame. With her plump, aproned figure leaning far forward and her wooden clogs widely separated in a determined stride, the little Dutch girl was indeed the picture of bustling energy. Mr. Strauss immediately recognized her as the key to both a trademark and a product name—Old Dutch Cleanser. With this beginning, the idea of the "Chases Dirt" slogan was readily evolved from "chasing a goose," as was pictured on the frame. The section of the original frame which inspired Mr. Strauss is shown in full color on our cover and the complete picture is among the illustrations herewith.

Cudahy officials knew that their product would have to be conveniently packaged. Selection of a sifter-top can which would remain sealed until the sifter holes in the top were punched in was a logical but original solution. Research on the container revealed that a



CONVENIENCE was basis of original product idea. Old Dutch was first powdered cleanser, replacing hard-to-use scouring bricks. Metal top with pre-scored sifter holes was simplicity itself. Composite fibre-metal can was designed and made, as it still is, in the Cudahy plant.

round can of appropriate diameter was most conveniently held. It was also decided that a fibreboard side wall in combination with metal ends was preferable to an all-metal can, since its lighter weight reduced shipping costs and made it easier for the housewife to handle. The Old Dutch containers, which for many years have been made by Cudahy on its own equipment, are of spirally-wound construction and require no inner liner, the laminated character of the fibreboard wall providing adequate strength and protection. The can-making machinery, as well as the filling equipment used, was specially developed by Cudahy.

Label design

The product was placed on the market in 1905. In selecting colors for the label, Cudahy officials took cognizance of the trend to color advertising which was just beginning at that time. Their selection of red, blue and yellow for the label colors was based not only upon the fact that they were primary colors with strong eye appeal, but also upon the fact that they could be easily reproduced in advertising.

Cudahy wisely avoided the cluttered appearance characterizing many labels at the time. The Dutch girl figure was featured on the front display panel, standing out sharply against a bright yellow background. Her dress was in dark blue with light blue highlights, while the bonnet, apron and stockings were white and the wooden shoes bright red. The upraised stick, lending a dynamic movement to the label and dramatizing the slogan, was printed in brown. The product name appeared in white letters (caps and lower case) against a red strip topping the front display panel. The famous "Chases Dirt" slogan beside the trademark and the statement, "Makes Everything

"Spic and Span" were the only other copy points.

Flanking the central display panel were two side panels about 1 1/4 in. wide, with yellow tulips against a light blue background at the top and bottom of each. These panels extolled the virtues of Old Dutch—"Cleans, Scrubs, Scours, Polishes"—and carried supplementary copy listing the many types of products and surfaces, ranging from bath tubs to surgical instruments, for which the product was suited. Anticipating a trend which only in recent years has been the general rule for such labels, detailed use instructions for Old Dutch were confined to the back panel of the label, greatly enhancing the appearance of the display panel.

Early advertising and promotion

Since Old Dutch was a completely new type of product, Cudahy found it necessary to educate housewives in its use. In the early marketing stages, difficulties were encountered because the public was of the opinion that anything in the cleaning field offered in powdered form was a soap and could be used for all types of washing jobs. Convincing housewives that Old Dutch should not be used on hubby's shirts and other laundry assignments required patience and an army of demonstrators, but the educational program finally took hold. In the intervening years, Cudahy has preserved this close contact with the buying public through frequent surveys designed to check consumer attitudes toward Old Dutch and competitive cleansers and to verify laboratory test results.

FAME OF CLEANSER is such that the bustling Dutch girl with her threatening stick has for many years been a world-wide symbol of "cleaning up." *Puck* in 1912 lampooned Teddy Roosevelt and his trust-busting activities. War Bond poster is one of several used in World War II.



OLD DUTCH AROUND THE WORLD

IN ANY LANGUAGE, Old Dutch label is unmistakable. In all, nine languages are used to supply a global market from three domestic and five foreign plants. Spanish know product as "Dutch Maid"; Chinese, as "Old Holland Puts Away the Dirt."



As might be expected, many imitators rushed into the market with "similar" cleansers as soon as Old Dutch had won wide distribution and acceptance. However, in a field marked by stiff competition, Cudahy has maintained its position as the top volume cleanser, having distribution in more than 90% of the nation's 390,000 grocery outlets and many foreign countries.

Vigorous advertising paid off. Old Dutch soon came to be accepted as symbolic of cleanliness, or "cleaning up" a situation. Cartoonists here and abroad found it a handy synonym. Typical is the cover of *Puck* magazine of June 5, 1912, on which the familiar Old Dutch trademark was cleverly transformed into a caricature of President Theodore Roosevelt in his campaign to "clean up" big business. In this illustration, the determined Roosevelt profile was sketched in lightly and the upraised stick was metamorphosed into a gauged club—the "big stick" which Roosevelt advocated carrying while speaking softly. Published "with acknowledgments to Old Dutch Cleanser," the drawing was titled "Teddy the Old Dutch Cleanser."

During both World Wars, the trademark was used extensively by cartoonists to carry out the theme of "cleaning up" our enemies. In World War I, the 50th Aerial Pursuit Squadron adopted the device as its insignie, while in the more recent conflict it was used by a bombing crew. The Dutch figure, with upraised stick or busy broom, was also used in cartoons on behalf of War Bond sales during the last war.

Modernization of label

With the exception of occasional slight copy changes to meet new market conditions, the original Old Dutch label was continued in use until about 1930. During the intervening years, a number of competitive products

had entered the field, but the Cudahy product retained its dominant position.

In 1930, Cudahy officials authorized a rather extensive revision of the Old Dutch label. Described as essentially a "cleaning up and modernizing" process this activity was worked out under the supervision of William Weber of Cudahy. It was the opinion of top management that, due to the established position of the Dutch girl trademark, substantial design modifications could be effected without impairing the identity of the package.

In the streamlining process, the tulips were dropped from the label and the Dutch girl, her club changed from brown to bright red, was moved to the top of the label. The toes of the wooden clogs were slightly more blunt in the revised drawing than on the original label and the club was held in a little more upright position. Whereas the extended forearm and clenched hand of the girl had been outlined in red on the earlier label, this detail was printed in blue on the revised version. A considerably lighter shade of blue was substituted for the deep blue on the dress of the Dutch girl.

The most pronounced change consisted of placing the name of the product at the bottom of the label instead of at the top, in a red panel which encircled the entire can and left the front of the package virtually free of copy, to emphasize the famous trademark. The words "Old Dutch" were brought out much stronger than the word "cleanser," using sans serif capital letters instead of the earlier serif-type caps and lower case. The famous "Chases Dirt" slogan also adopted clean-cut sans serif type.

The general effect of the 1930 redesign was to divide the label into only two principal panels—front and rear—instead of having the directions for use and other



PROMOTIONAL DEVICES now include premiums and contests with valuable prizes. Note effectiveness of label in this mass store-window display; also trademark imprinted as a continuous design on corrugated shipping containers.

reading matter broken up into three separate groups on the label. The educational period—during which women had unwittingly tried to use Old Dutch for the family washing—was far in the past. Now the important thing, as visualized by Cudahy officials, was to meet growing competition by playing up the famous brand name and trademark more vigorously. That users of the product took favorably to the new label was evident from the many unsolicited letters received by Cudahy. The construction of the composite package itself was not altered in any way.

Label changes since 1930 have been confined to small details.

"With activated Seismotite"

Cudahy has always tied in its advertising activities on Old Dutch directly with laboratory findings. A good example of this continuing effort relates to Seismotite, the special grade of volcanic ash used since the beginning as the basic ingredient of this cleanser.

Seismotite was naturally grey in color. Believing that a white powder would further enhance the acceptance of the product, Cudahy researchers worked for some 15 or 20 years to find a method of whitening the material. Then came a pleasant surprise: the "activated" Seismotite, as it was described in the laboratory reports, turned out to have 30 to 50% greater cleaning characteristics than the product in its natural grey state.

Cudahy officials quickly realized that the research department had provided them with an effective advertising story. All present advertising is keyed to that story. Now the phrase, "Made with activated Seismotite," appears on both front and back panels of the Old Dutch label, with the following statements preceding the brief directions for use:

"A new scientific process of activating Seismotite—famous dirt-removing ingredient—gives Old Dutch a

new and different cleansing action! It means *less time, less rubbing!* Old Dutch Cleanser dissolves grease. *Activated* Seismotite quickly erases dirt and stains! Snow-white, easy on hands. Safe, economical."

In its postwar merchandising program for this famous product, Cudahy carefully weighed suggestions that it adopt the name New Dutch Cleanser. However, it was decided that such a switch-over would result in too many complications; accordingly, postwar copy referred to the *New Old Dutch Cleanser*, emphasizing that the improved (activated) product could still be found in the "same familiar package."

Advertising budget

Cudahy officials estimate that during the 45-year history of the product, advertising expenditures have totaled between \$60 and \$75 million. During 1948, the advertising effort reached a new high. At the same time, the Old Dutch girl was given more action and life in the company's advertising. "Now she chases dirt with more spirit and sprightliness than ever before," declared the company's annual report for 1948.

As sales of Old Dutch have increased, advertising expenditures have kept pace. According to unofficial figures, Old Dutch advertising now runs between \$1,500,000 and \$2,000,000 annually for the three basic media—national magazines, newspapers and radio.

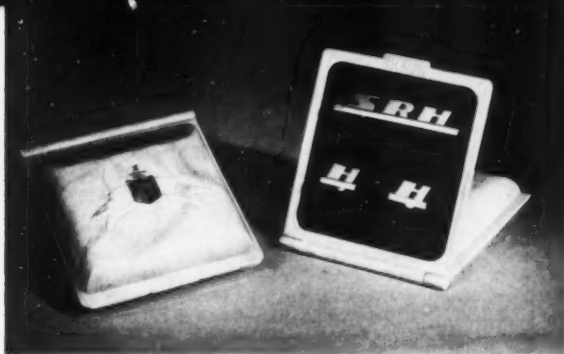
Foreign markets

Since world-wide sales of Old Dutch top those of any other cleanser, it is not surprising to learn that the three domestic plants producing this product (located at Omaha, Los Angeles and Calumet City, Ind.) are supplemented by additional plants in England, Cuba, Mexico City, Toronto and Sydney, Australia. To handle this global market, Cudahy uses several varieties of English labels, as well as a number of special versions printed in Spanish, Portuguese, Italian, French, Danish, Chinese, Japanese, Dutch and Yiddish. In several instances, the copy for these labels is worked out in detail in the country where the product is to be sold, to overcome the many problems which arise in translating a label into another language. Typical examples of some of the foreign labels are illustrated.

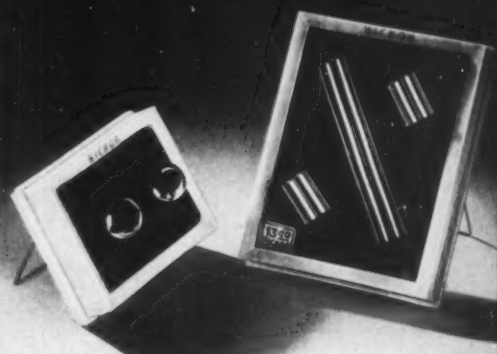
Several of the foreign labels, it will be observed, still follow the pre-1930 design treatment. There is a good reason for this; extreme care must be observed in modifying foreign labels because foreign customers have learned, through experience, to be wary of imitations.

As a pioneer product with a pioneer package, Old Dutch vividly illustrates how vigorous merchandising can keep a famous trademark in the No. 1 spot despite stiff competition. So long as the supply of Seismotite holds out—and Cudahy officials have no worries on that score—Old Dutch can be relied upon to give a good account of itself.

CREDITS: Labels printed by Nelson Colortype Co., Chicago. Labeling equipment, Standard-Knapp Corp., Portland, Conn. Shipping containers, Container Corp. of America, Chicago.



SELF-DISPLAYING case for the new line of men's jewelry is molded of polystyrene to which metallic powders are added for a marble-like effect. Cover serves as a pedestal when case is open.



MINIATURE plastic picture-frame cases have concealed wire easels which can be pulled out from case backs to set them up for display purposes.

Dress Parade

GEM-LIKE DISPLAY PACKAGES SUGGEST THE DRESS-UP

QUALITIES OF HICKOK'S JEWELRY ACCESSORIES FOR MEN

This year has seen a pronounced interest in revamping the packaging of men's jewelry to give this profitable merchandise the tempting appearance that packaging of women's costume jewelry has long had.

The latest example is that of Hickok Mfg. Co., Rochester, N. Y., which recently premiered the packaging for its newest line of men's jewelry at its national sales conference. The company has come up with a series of tastefully designed plastic packages called "Dress Parade." The simile is particularly apt, since the ingenious construction of the packages is such that each one serves as its own window or counter display, showing off the jewelry on "dress parade."

There are two different types of packages and five different sizes in the "Dress Parade" package series. For items selling for \$3.50 and up (retail) the package is a sleek, graceful gray or beige jewel case molded of two-tone polystyrene. A marble-like effect is obtained by adding metallic powders to the polystyrene resins: gold to the gray and copper to the beige. The same material is used for the other package, a novel "picture-frame" case that Hickok designed for its tie bars, cuff links, ascot pins and key chains selling for \$2.50 retail. In both containers the jewelry is mounted on pads made of brilliant "gaucho" red velvet— a shade that virtually makes the jewelry itself "stand at attention to command attention," as Ray Hickok, president of the company, said.

The jewel case is devoid of ornamentation except for the raised Hickok crest molded in the center of the top, which is sprayed with bright, gold-colored ink. The appeal of the case rests upon its complete simplicity. When the case is closed there is nothing to detract from the beauty of the marble-like polystyrene and the shape. Although the edges of the hinged cover

appear to be flat, at the rim they are curled so that the cover telescopes over the base.

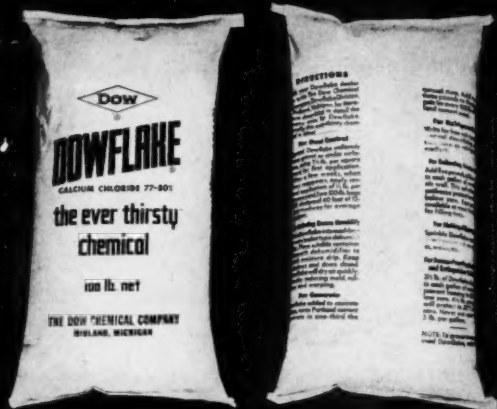
The meticulousness followed in designing the case is evidenced by the way it is transformed into a display package when opened. The cover swings back on its heavy, ball-bearing hinge in an arc of roughly 180 deg. to become a pedestal against which the base can be propped at a good display angle. The extended thumb pull on the front edge of the base section has the Hickok name molded in, and in the opened display position it serves as a novel means of calling attention to the name. To hold the velvet pad firmly in place, the base is molded so there is a slight overhang at each inside corner.

For the second "Dress Parade" package, Hickok has designed an open-faced case that is literally a miniature picture frame. This shallow, rectangular container, molded of the same two-tone polystyrene as the jewel case, offers a fine contrast to the richness of the red velvet pad that serves as the background for this jewelry "portrait." To support this "framed" jewelry as a counter display, the case has its own concealed wire easel which pulls out of the case back. The Hickok name is hot-stamped on the top panel of the frame.

Hickok's "Dress Parade" series of packages is a continuation of a general "smartening up" of all the company's packaging and merchandising aids to dealers.* For the jewelry lines, the bleached wood displays have red velvet as the backdrop for the merchandise.

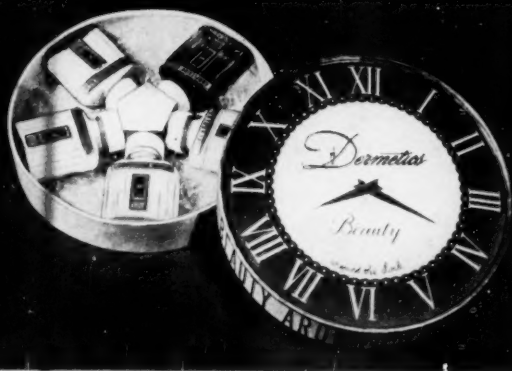
CREDITS: Jewel case molded and assembled by Braun-Crystal Mfg. Co., Middle Village, N. Y., using Dow and Monsanto heat-resistant-type polystyrene. Picture frame case, Ontario Plastics, Rochester, N. Y.

* See "Hickok Modernizes," MODERN PACKAGING, May, 1949, p. 126.



1 To give utmost protection to its Dowflake, "The Ever Thirsty Chemical," (calcium chloride) Dow Chemical Co. has adopted a new, heavy-duty, laminated 55-lb. kraft paper bag made with an asphalt-adhesive coating to which mesh cord is added. The treated paper is laminated to another sheet of kraft, then machined into a tube. The ends are stitched and taped.

2 The gold and white face of the clock on the top of Dermetics' new year-around gift box appropriately carries out the theme of its name, "Beauty Around the Clock." The round box contains five 1-oz. bottles of the cosmetic basics arranged like a bouquet with the bottle caps facing toward a pentagonal center piece that holds them in place. Design, Martial-Sculi, New York. Box Heminway Corp., Waterbury, Conn.



MP MODERN



3 J. M. Welch & Co., Inc., has adopted window cartons completely lined with mold- and grease-resistant acetate film for its Newport Brand sliced dried beef. A diamond fold closes the corners securely to prevent dripping. Because they serve as home storage units until all the meat is used, the packer's name gets continued recognition. Box (Cel-O-Fold), Interstate Folding Box Co., Middletown, Ohio. Cellulose acetate (Lumarith), Celanese Corp. of America, New York.

4 A self dispensing, easy-grip bottle with a finger-tip-pressure atomizer closure that sprays in any position has been adopted for Venida Spray-Lac liquid hair lacquer. The closure, consisting of a metal ring and rubber push-button, has a special lock arrangement that prevents leakage and evaporation. Closure, MisTop Mfg. Corp., Carmel N. Y. Bottle, Carr-Lowrey Glass Co., Baltimore, Md. Label, Espan Labels, New York.

5 An interesting new application of the rectangular aluminum tray container is this package for Byram Hall brand quick-frozen, deep-dish apple pie. The leak-proof, disposable package has a crimped-on lid that can be removed so the tray can be placed directly in the oven for baking. The container can even go on to the table for serving. Container, Reynolds Metals Co., Richmond, Va.

6 Because of the nature and use of Tolchard Products Co.'s new dog lotion, the package designer chose to have the stock bottle labeled with ACL (applied color



labeling) rather than a paper label which would soil easily. The feature of the label design is a dog's head done in a rich brown and black. Use instructions are on back of the bottle. The small, upper top of the two-piece black plastic closure can be removed separately if the lotion is to be sprinkled on rather than poured. Design, Thomas D'Addario, New York. Labeling, Anigraphic Process, Inc., New York. Bottle, Owens-Illinois Glass Co., Toledo, Ohio. Closure, Grigoleit Co., Decatur, Ill.

7 Wolff Freres' rare \$100 perfume, "Crisance," is bottled in a hand-fashioned, pure crystal flacon with an unusual tie-on booklet label of heavy, embossed, gold-colored aluminum foil, which in no way interferes with the beauty of the bottle. Label, Richard M. Krause, Inc., New York. Bottle, Steuben Glass, Inc., New York.

9



PACKAGING PAGEANT



6



7



8

8 Paper for these packets of Jack Frost sugar is imprinted in two colors on a new web press which applies a heat-sealing resin to the back of the paper at the same time the imprint is made. The press is designed to permit rapid changes of the imprint. For National Sugar Refining Co., the imprint is changed every 30,000 impressions, if necessary, allowing the company to sell the packets in small quantity orders. Paper, Specialty Package Div., Leeds Sales Co., New York.

9 A new coffee product, "Quik-Kup," in "tea" bags is being test marketed by Heyman Process Corp., Brooklyn, in five cities. Each string-tied paper bag contains a combination of soluble and roasted granular coffee and the beverage is prepared in the same manner as tea when it is in bags, according to the company. Eighteen bags are packed in a yellow and brown lithographed key-opening vacuum can which retails around 50 cents. Custom packing of bags, Tea Pack Co., New York. Can, American Can Co., New York.

10 A new boot carton that eliminates the use of separate partitions and fillers is used by Richard Hudnut for the combination offer of its enriched creme shampoo and creme rinse. The display carton contains two different sized compartments to hold separately the 2-oz. and the 8-oz. bottles. The shorter bottle rests on an integral platform. Design, George Reiner, New York. Cartons, Wilkata Folding Box Co., Kearny, N. J.

11 New airtight, leakproof refrigerator and freezer glass jars made by Ball Bros. Co. are packaged in convenient, carry-home paperboard cartons for drug, department, supermarket and hardware stores. Each carton contains a set of three jars, complete with screw-on caps. Carton, Container Corp. of America, Chicago.

10



REVOLUTION or EVOLUTION?

HOW RADICALLY CAN A PACKAGE DESIGN

BE CHANGED WITHOUT LOSING IDENTITY?

MOTHINE'S STORY REVEALS PROGRESSION

IN MODERNIZATION OF BASIC ELEMENTS

How much can a design be changed, yet retain the recognized character of an original package?

New packages for a whole new line of "Mothine" products represent an interesting study of this problem by Galree Products Co., New York.

Designed approximately 15 years ago, the old package for "Mothine," a moth preventative, had gained wide consumer recognition. Yet the company felt that for a product which depended largely on seasonal counter display for success, the original package design lacked the quality of today's advanced theories of good package design.

As far back as 1940, nine years ago, executives of the company were aware of this condition, yet at many sales meetings where this subject was discussed, it was always the decision to allow the package to remain as it was.

Something, however, happened in the merchandising of the company's products to change this situation. It was noticed that there was growing interest in this moth preventative along other lines. Whereas the original "Mothine" was manufactured for use in cans with handles for hanging in clothes closets, there was a growing demand for the product in other forms for use in other places in the home—in vacuum cleaners, for storing with clothing, as well as in a liquid form for use in spraying.

Naturally this development of the product in new forms created a need for new packages. For the complete line, then, it seemed advisable, when planning the



ORIGINAL DESIGN, which the company thought required bringing up to date to meet the current modern requirements of good counter identity.

packages, to bring the package surface design up to date.

This brought up three questions: (1) Should the old design be kept intact and used as the basis for the complete line? (2) Would it be advisable to disregard the old design entirely and start afresh? Or (3) would the proper line of thought be to retain the character of the original package, thereby retaining the recognition value of the old while modernizing it to meet today's merchandising requirement?

The latter approach was chosen, but only after an unusual study worked out in cooperation with the package designer assigned to the job.

He created a series of 14 different model package designs in two colors. Seven of these are reproduced in the accompanying illustration. These designs ranged from the very slightest modification of the original motif to the most extreme change in all elements that could be made without the effect of losing complete identity of the product.

One model package a day was then placed on a display counter where "Mothine" was being sold and a salesgirl was detailed to make notes on consumer reaction to each new design. Did shoppers recognize the brand immediately? Did they know what the product was used for? Such questions were asked and all remarks, both favorable and otherwise, were noted by the salesgirl.

When this research was completed, a summary revealed that the redesign which retained the greatest visual association with the original package appeared about half way between the minimum change and the fourteenth or most revolutionary change in the package design.

This "middle-course" design was thus selected as the basis for the modernized treatment of the entire line. It is believed to be most effective for recognizability of a seasonal item, purchased when needed, that cannot be advertised far in advance by day-to-day advertising,



VARIATIONS on a single design theme, ranging from a simple modification of the original motif to a complete change of all elements. Consumers said fourth design from left in series had greatest visual association with original package.

but must be on the counter, quickly identifiable at the right time. Models of the finally selected design were then constructed in all sizes by the designer for approval. The back directional sides were planned to tie in with the front view.

The result: "Mothine" with all its offspring as a complete family, all dressed up, with places to go.

CREDITS: Design program, E. Leonard Koppel, New York. Cans, American Can Co., New York. Printed labels, Joseph Zuckerman, Inc., New York. Fibre containers, Harcord Mfg. Co., Div. of Meehan-Tooker Co., Jersey City, N. J.; Mitchell Paper Products Co., Bloomfield, N. J.; Cleveland Container Co., Cleveland, Ohio.



NEW MOTHINE FAMILY shows how modernized design has been adapted to complete new line of moth preventative packages for crystals and liquid spray items.



FINAL DESIGN was developed from the arrangement consumers indicated retained the most recognizable elements of the old package.



4 out of 5 choose oranges in



Attractive — eye-appealing

Keeps oranges fresher and juicier longer

Strong, durable, tear-resistant

Holds more, increases unit sale

In a month's test in fifteen big super-markets, four out of five shoppers bought oranges bagged in transparent re-usable Pliofilm — in preference over fruit packed in other containers.

Similar results are being obtained on apples, onions, potatoes and other bulk produce packed in these handy new Pliofilm super-market bags.



Pliofilm T.M. The Goodyear Tire & Rubber Company

these sturdy Pliofilm bags!

Transparent — customers see what they're getting

Fast-moving — no picking and choosing

Light, sanitary — washable for home re-use

Easily used on automatic bagging machinery

Test points way to sales increases on all types of bulk merchandise

Here's a tip for speeding up sales and turn-over on all bulky produce that is difficult to package and display attractively.

Just as experience proves oranges, apples and other produce sell faster in Pliofilm, so will other products.

The reason is simple. In Pliofilm, people can see what they're getting. It keeps edible products fresher, tastier; can be washed and re-

used to keep vegetables, cheese, meats and other food items fresh for days longer. It stands up in shipment—isn't affected by weather.

Available in many shapes and sizes

Plioform produce bags can be supplied in any form or size to meet your need. If you have a packaging problem, let us recommend the right type of Pliofilm sales-boosting package. Address: Goodyear, Pliofilm Dept., Akron 16, Ohio.

Good things are better in

Plioform

3-way protection against air, moisture, liquids.



Dixie woos the housewife

**A FAMILY OF CONTAINERS TAILORED TO
RESEARCH FINDINGS ENVISIONS A VAST
NEW HOUSEHOLD MARKET FOR PAPER CUPS**

An excellent example of the application of the findings of market research to package planning is the new Dixie Home Line, launched this year by the Dixie Cup Co., Easton, Pa., as the basis for a promotional program intended to make the paper cup as familiar a convenience in the American home as paper towels and facial tissues.

The Dixie Home Line and its market potentials had been contemplated for more than a decade, but only this year did periodic field testing indicate that conditions were favorable for entrance into this phase of paper-cup merchandising.

The first step in the market study was to establish a line of products that would best meet the needs of the average home. A selected group of families in various age and income groups was thus supplied with an elaborate line of Dixie Cups. After the families had a chance to familiarize themselves with the products, they were questioned about what sizes they liked best, where they stored the cups in the home, where and how many at a time they preferred to buy.

The answers showed the most popular sized cups used were 3-oz., 5-oz. and 9-oz. This indicated, then, that the packages should be designed to hold those sizes. Since most of the housewives said they preferred to buy Dixie Cups where they purchased food products, the company knew that the Dixie Home packages would thus have to be designed to sell in competition with grocery and other household items. The fact that most housewives said they wanted to purchase at least a one-week supply of Dixies at a time, indicated that the package had to be small enough for convenient storage with other household supplies in the kitchen and bathroom. Women also liked packages that were easily opened and reclosed. The study indicated further that a permanent dispenser was considered preferable to a temporary one. It showed that every home was a market for two Dixie Cup dispensers (called holders by the company as a more descriptive term)—one in the kitchen, one in the bathroom.



INDIVIDUAL PACKAGES for three sizes of Dixie Cups are all same length, 11½ in., to fit conveniently on kitchen or bathroom shelf. Colors of the packages differentiate cup sizes: green for 9-oz., pink for 5-oz., blue for 3-oz. Actual cup sizes are illustrated on the carton.

Armed with these facts and additional market tests, the company was ready to tackle its packaging program to tie in with the merchandising requirements.

The company decided to package its home dispenser in combination with two packages of Dixie Cups. The one package of Dixies would serve as an initial supply, the other would be placed upon a shelf or in a cabinet until refilling became necessary. It was hoped that obliging the consumer to store one of the packages of Dixies would be the first step in the forming of a habit.

The packaging, all of which is of folding carton construction produced by the company itself, thus evolved into the following classifications:

1. Combination package containing polystyrene Dixie Cup holder, designed to hold 3-oz. Dixie Cups, and two cartons each containing 60 3-oz. Dixie Cups.
2. Combination package containing polystyrene Dixie Cup holder, designed to hold 5-oz. Dixie Cups, and two cartons each containing 50 5-oz. Dixie Cups.
3. Individual cartons of Dixie Cups, each containing either 60 3-oz. Dixie Cups, 50 5-oz. cups or 40 9-oz. cups, the former two of which can be sold as refills for the two dispenser holders after the first purchase. There is no dispenser for the 9-oz. tumbler-sized cups.
4. Die-cut shipping and display sleeves for units of four 3-oz. Dixie Cup refill cartons and three of the 5-oz. Dixie Cup refill cartons, which may be sold by the dealer as complete units, opened up for display or



COMBINATION PACKAGE contains polystyrene plastic Dixie Cup holder and two refill packages, all contained in counter display carton. Directions for securing the holder to wall are on bottom of carton. Colored stripe on holder designates what color refill packages fit holder.

section with illustrations of the three sizes of cups also gives further opportunity for promotion of the line.

Packages of three sizes, all the same length, presented a problem of differentiation, although the counts are different and the sizes of the cups are printed on the package fronts. Color was used as the solution. All 3-oz. cups are in blue packages, 5-oz. in deep pink and 9-oz. in green cartons.

The combination packages, accommodating a dispenser holder and two refill packages of Dixie Cups, had to be designed to enclose and protect the holder and at the same time act as a display box when placed on the counter. A folding display carton was thus adopted, die cut so that a large illustration of the holder can be folded into an upright position for display. So that consumers may quickly determine what size of refill to buy for their holders, a colored stripe is provided on each holder in the same color as the cartons which contain the size of cups that fit that holder—blue for 3-oz. and pink for 5-oz.

To overcome the tendency of the consumer to assume that anything that has to be mounted on the wall in-

DIE-CUT SLEEVES for shipping and display of three and four individual cartons have special construction so that die-cut center may be folded back to display individual packages, also hold cartons snugly in place. Printing on fold-back section promotes all three Dixie Cup sizes.

broken up for selling of the individual boxes if desired.

The first problem was a simple design which would immediately identify the packages as Dixie Cups and which would have poster display to meet the requirements of self-service food store merchandising. This was accomplished with large clear lettering of the name prominently on all sides and with careful presentation of promotional and direction-for-use copy.

Next came the planning of a refill package sturdy enough to withstand the abuse of shipping and store handling by the adoption of four-flap, double-sealed ends. Another essential was to devise three cartons to hold each of the three sizes of cups and fit into the average kitchen or bathroom closet. For this reason all refill cartons have been given a length of 11 $\frac{1}{4}$ in., but vary in perimeter to fit all three cup sizes.

A simple opening and closing means is provided by a perforated line around three sides of one end of the package, which can be easily opened by thumb nail. The fourth side, left uncut, serves as a flap and thus permits the package to be resealed.

Sleeves to hold the units of three and four individual cartons are constructed so that a front window may be made for display by folding a die-cut portion back into the sleeve (see illustration). When thus folded back, the individual packages are not only visible, but the folded-back section gives a snugger fit to keep the packages from sliding out. Printing of the folded-back



volves considerable difficulty or is likely to mar the wall, simple pictorial instructions are printed on the bottom of the combination display box where the consumer may examine the directions before purchase. In this way, the company has also saved the cost of printing and enclosing a separate instruction sheet.

With such a well-thought-out packaging program, the company not only has a family of packages which meets the merchandising requirements of launching the Dixie Home Line, but one which is ready at the point of sale to reap the benefits of the company's extensive campaign to popularize Dixie Cups for home use.

Glenmore Distilleries Co. presents another in its series of displays featuring the "Little Colonel." This time the little trade character is in an animated display with his legs busy pumping a stylized bicycle to bring the bottle of Kentucky Tavern in his basket by "Special Delivery." Back wheel moves and carries a price spot. The display stands 22 in. high. An a.c. motor powers the unit. Display, W. L. Stensgaard & Associates, Inc., Chicago.



The popularity of a carton of cigarettes as a birthday gift led Liggett & Meyers to design a special birthday package featuring four-color portraits of the three Chesterfield radio stars. To display the birthday pack—actually a paperboard sleeve that slips over a regular carton—dealers get paperboard racks and blow-ups of the portraits. Display, Badger Cutouts, Inc., Long Island City, N. Y. Sleeves, Forbes Lithograph Mfg. Co., Boston.

For continuing promotion, Canada Dry is distributing this novel display with interchangeable parts. The basic display piece, lithographed in a knotty pine design, provides a background to which the four interchangeable sets of attachments, each consisting of a framed picture and shield, can be applied in a few seconds. Lithographed in full color, the pictures promote ginger ale, sparkling water or Spur Cola separately or these four Canada Dry beverages together. After removal, the pictures can be hung on walls by means of concealed cords. Display, Niagara Lithograph Corp., Buffalo, N. Y.



DISPLAY



The new "Hoffman's Raisers" window and store display is convincing proof that children are attention-getting subjects for advertising. The paperboard display, lithographed in 10 colors, does double duty: it sells Hoffman as a "family" beverage for children as well as adults and it sells the "stock up on Hoffman" copy through the view of the assorted flavors seen in the opened refrigerator. The die-cut outline of the display adds to the realism of the presentation. Display, Einson-Freeman Co., Inc., Long Island City, N. Y.

This floor stand for Seagram Distillers is planned to give maximum impact at the point of sale to the company's Seven Crown trademark. Shaping the stand from paper-board into the silhouette of the figure "7" and supplying the tensile strength and stability required to support the weight of a full dozen bottles called for a high degree of ingenuity. These factors were carefully measured in extensive laboratory tests before the display was released to dealers. Display, Consolidated Lithographing Corp., Brooklyn.

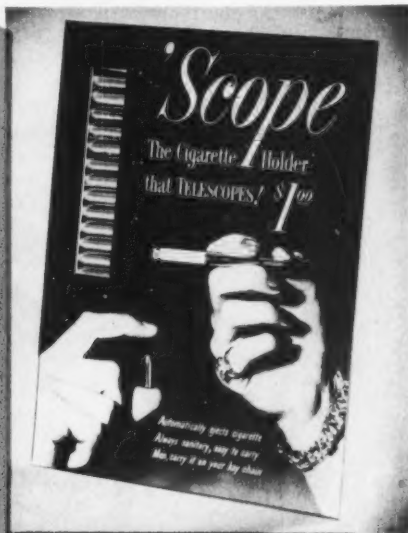


GALLERY

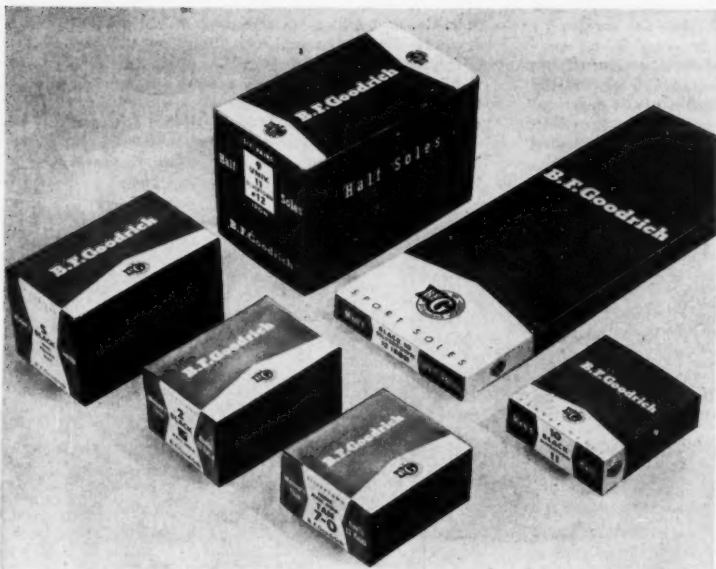


Magnetized blocks of steel hold part of the new line of Billings & Spencer Co.'s Life-Time wrenches on the wood backboard of this "Magic-Clerk" display—a novel idea for showing a variety of packaged metallic items. Twelve wrenches are held by magnetic rails, five are secured to the base with bent wire frames, arranged so any of them can be picked up to get the "feel" of the tools. The remaining 49 wrenches in the line are stored in back of the display. Display, Display Workshop, Inc., Hartford, Conn.

The feature of 'Scope—a cigarette holder made by Risdon Mfg. Co. that telescopes from $3\frac{3}{16}$ down to $1\frac{1}{16}$ in.—are dramatically shown in illustrations on this full color, pilferproof, counter dispenser. A dozen 'Scopes are visible through the die-cut, acetate-covered window in the display. A small container mounted behind the window holds exactly 12 holders so that the dealer need not count them when loading the display. Display made by Color Crafts, Inc., New York, using Eastman Kodak Co.'s Kodapak acetate.



Bison Venetian Blind Cords, previously packaged in shelf boxes with no identification but end labels, gets a sales boost with these new wrap-around labels and counter display cartons, showing the effective use of one-color printing, red, on white stock. The cord, available in several colors, is a "price item" for hardware stores, so the carton cover is designed with a prominent price spot. Design, Frank Condon, New York. Carton, Shuttleworth Carton Co., New York. Label, Warren Press, New York.



NEW FAMILY design has been adapted to entire line. Interest is concentrated on end panels to give quick inventory picture on shoe repairman's shelf and more impressive shelf display to B. F. Goodrich Co. products.

Simple soles

HEELS, TOO—SOME 728 SHOE-REPAIR ITEMS—CAN NOW

BE HANDLED WITH ECONOMY IN JUST 18 REDESIGNED GOODRICH CARTONS

Simplification is a major study for every firm with a vast number of sizes and styles of items to package. Reducing the number of container sizes required can be a major contribution to economy. The fewer types of packages necessary, the easier it is to maintain inventory control, the less it costs to produce the packages, the more efficient is the handling.

The Shoe Products Division of the B. F. Goodrich Co., Akron, Ohio, recently tackled such a problem covering the packaging of more than 500 separate heel and sole items and has reduced a former 55-package inventory to a mere 18 containers.

The way in which this program was worked out by a leading design firm, under the supervision of Fred A. Lang, general sales manager of the Shoe Products Division, will be of interest to many packagers faced with similar situations.

The impetus for the design program was prompted by B. F. Goodrich's decision to revamp thoroughly its Shoe Products merchandising. From the packaging standpoint, the problem differed from the usual consumer packaging in that heels and soles are merchandised to the shoe repairman only. The consumer seldom sees the individual packages. Stacked on the repairman's shelf, the packages must give recognizabil-

ity to the B. F. Goodrich line and beyond all, give a clear inventory picture of the heels and soles he has in stock.

B. F. Goodrich had been distributing four different brands, each in its own family brand package—Silver-town, Vogue, Arrow and Suprex. Over a period of years, the four brands had ceased to be different lines in different price ranges; hence the use of "brand" to designate them was somewhat of a misnomer. Rather than different grades of merchandise selling at different prices, the four names were merely designations of various items integral to the complete inventory of Goodrich heels and soles. Greater concentration of the B. F. Goodrich name, therefore, was seen not only as a prestige builder, but as the first step in the simplification program.

In consequence, a new basic design and color scheme has been adopted for the whole B. F. Goodrich family, so that all packages now have similar identity. The different names which formerly appeared to be brands are now used to suggest only the type of heel. Furthermore, packages for only the top-selling items now need to be ordered completely preprinted; the rest are imprinted with style, size, etc., on special equipment during the actual packaging operation in the plant.

This procedure immediately simplified container inventories tremendously. No longer do large stocks of cartons, preprinted to various requirements, have to be kept on hand and coordinated with production. Accumulation of finished merchandise pending delivery of cartons is eliminated, since, for short runs, imprinting can be done from existing container stocks right in the manufacturer's plant.

To arrive at the smallest number of cartons that could be used, a novel plan was worked out. For example, to find out how few cartons could be used to pack various-sized pairs of heels, one pair to a carton, the designers fashioned a number of wooden blocks, representing the area in height, width and depth occupied by each pair. Use of the blocks facilitated the reclassification, since they could be easily manipulated. Arranged according to brand names, the blocks showed the disposition of heels into seven different-sized cartons. The goal was to put the entire group into not more than five cartons. Rearrangement of the blocks according to size without regard to brand or styles permitted the adoption of five cartons for all types of heels packed one to a carton, yet maintained standards of non-slack fit, it was found. Formerly the number of damaged packages caused by ill-fitting cartons was quite high. Damage from crushing in shipping or shelf stacking has also been minimized by putting in each of the new cartons heels that occupy relatively the same depth.

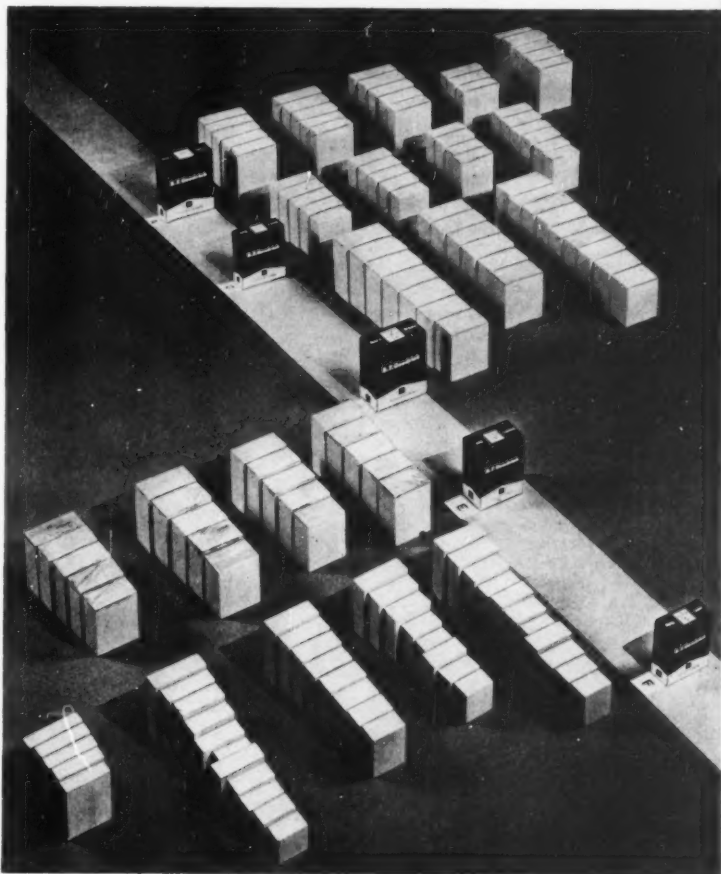
Further improvements in protection to the merchandise were made by re-engineering the construction of certain cartons. Men's and women's full sport soles, for example, are packaged one pair to the box. Formerly these weighty items were contained in straight-tuck cartons. Because there was opportunity for the soles to slide around in the carton, they frequently forced their way out of the loosely-fastened end tuck and sometimes caused complete loss of the product, as well as loss of the end flap containing essential dealer

information on style, size, color, etc. The easily-opened ends offered no resistance to pressure from weight when the packages were stacked and quite often collapsed.

By modifying the flap construction, the designers were able to provide a carton with the same dimensions as before but with reinforced ends consisting of four thicknesses of paperboard, incorporating two side tabs, the conventional tuck and also an additional flap which completely wraps around the first tuck and locks in slots on the back of the carton. These reinforced ends provide a bulwark against collapse from strain and prevent the merchandise from slipping out of the package.

Redesigned construction of the carton for women's top lifts, which are packaged and sold by the pound, makes use of the weight of the heels themselves to

WOODEN BLOCKS, representing the area in height, width and depth occupied by each pair of heels, facilitated reclassification for arriving at the least number of cartons that could be used to pack one pair of heels to a carton. In this instance, five sizes of cartons are now used, where formerly seven carton sizes were required.



prevent slipping through the bottom of the box. Two end flaps now fold across the bottom and are reinforced by a conventional tuck fitted with a slot. Another tuck fits over this and locks in the slot of the regular tuck. A notched lock for the inner top flaps is covered with an ordinary tuck flap to give added protection.

Chief consideration in the planning of the surface design, of course, was arrangement so that the packages could be stocked, stacked and located easily by jobber, finder and shoe repairman. For these reasons, design emphasis had to be concentrated on the end panels, where all essential descriptive data concerning contents could be quickly seen and read on the shelf.

With these essentials in mind, the designers selected a design theme which focusses interest on the end panels rather than the broader top and bottom sur-

faces, which merely complement the ends for quick color and trademark identity. The basic layout is formed by overlapping the angles of two identical triangles, resulting in an angular hour-glass pattern. This pattern lends itself to many variations on the current 18 packages used.

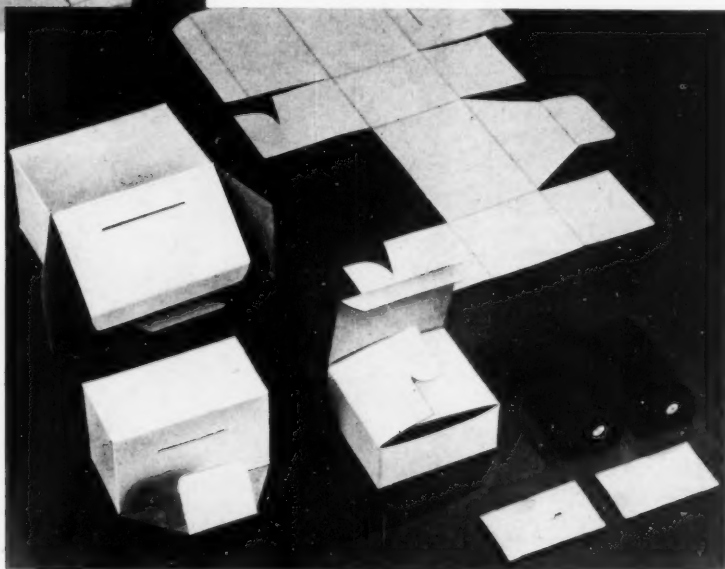
The color scheme is red, white and blue. White surfaces are maintained throughout for the imprinting of the essential descriptive data of style, size, color, etc. Tops and bottoms of the cartons carry simply the B. F. Goodrich logotype in Beton lettering, reverse printed on color, and the trademark color printed on a white area angled to point upward to the company name. The design layout had to be varied for different shapes and sizes of cartons, but is so simple that its modification never disturbs the family recognizability or the white hour-glass shape for informative printing.

It is said that the new packaging system is so flexible that when Goodrich increases its heel and sole line from 515 separate items to a contemplated 728, the new volume can still be contained in the same 18 cartons. With the new in-plant imprinting equipment, all hand stamping has been eliminated. To the production department, now having to maintain an inventory of only 18 different packages in comparison with the former 55, it is paradise.

CREDITS: Design program, Lippincott & Margulies, Inc., New York. Cartons, The Bradley & Gilbert Co., Inc., Louisville, Ky.

PACKED 1 LB. PER CARTON, women's top lifts are held securely in place by two end flaps reinforced by conventional tuck fitted into slot. Another tuck fits over this and locks in slot of regular tuck. A notched lock for the inner top flaps is covered with an ordinary tuck flap.

IMPROVED constructions keep weighty items from sliding around in cartons and forcing their way out. By incorporating two side flaps, the conventional tuck and an additional flap which completely wraps around first tuck and locks in slots in back of cartons, men's and women's sport soles are held securely in their cartons.



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TECHNICAL

ENGINEERING • METHODS • TESTING

Charles A. Southwick Jr. • Technical Editor

Basic mechanisms of packaging machinery

A DISCUSSION OF THE MECHANICAL LAWS WHICH GOVERN

THE OPERATION OF AUTOMATIC MACHINERY, WITH ILLUSTRATIONS

OF SOME FUNDAMENTAL MOVEMENTS. By S. Rappaport*

An automatic machine, so intriguing for a layman to watch in operation, is no less fascinating for the expert, let alone the designer who conceived the working idea and sees all the parts and mechanisms go through the paces which he has imposed upon them. The mechanisms obey rigid physical and mathematical laws with which the designer must be thoroughly familiar in order to be able to give those mechanisms intelligent commands. It saves time, energy and money otherwise wasted in countless experiments based on the trial-and-error method.

The designer's first step is to determine what single operations have to be performed by the machine and his next, by what means these tasks should be achieved. Sometimes it will help him to try to imitate the motions of his hands and fingers while they perform the desired operation—say the folding of a box wrapper—and sometimes it will be better to modify or even to abandon the anthropomorphic approach. Once the mode of operation is decided upon, it is up to the designer to choose the mechanism best suited to offer the necessary requirements as to correctness of motions, velocity and power characteristics. Many basic mechanisms are at

the skilled designer's disposal and only if none of them is found suitable is he called upon to devise new ones.

All mechanisms employed in the building of an automatic machine must fulfill four main conditions:

1. *The mechanism must be structurally sound.* The mechanism has to be designed in such a way as to actually perform what is expected of it—its motions, velocities and timing characteristics conforming to the given task. It must be of sufficient rigidity to withstand the working stresses safely. Its design must be sound in all details such as choice of materials, bearing lengths, lubrication, accessibility, etc., in order to warrant a reasonable life expectancy and easy maintenance, and it must offer the least possible inertial resistance in order to make high speeds possible.

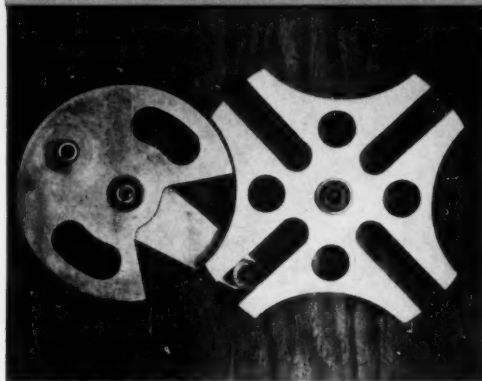
2. *The mechanism must be positive.* No mechanically-indetermined conditions as to displacement and velocity must appear in it. That means: to all positions of the driving member should correspond one and only one definite position of the driven member and, in the case of intermittent mechanisms, the driven member must be locked positively in its rest period.

3. *The mechanism must be reversible.* If the direction of motion of the driving member is re-

All too often, the newly developed and approved package is found at the last minute to place impossible demands on the automatic machinery that must handle it. This discussion bridges the gap between chemical and mechanical engineering knowledge that exists in most packaging departments. It should form a valuable reference for every package development laboratory.

* Consulting engineer, Wright Machinery Co., Durham, N. C.

External Genevas, in model



1 and 2. FOUR-SLOT external Geneva is illustrated at the left as a mounted model. Shown at the right is a four-slot external Geneva as used in the intermittent cellophane feed drive of Wright's Mayplex sandwich-wrapping machine.

versed, the driven member should reverse its motion also. Otherwise, if for some reason the machine were turned backwards, the nonreversible mechanism would maintain its original sense of motion (as in the case with the ordinary ratchet wheel), thus possibly interfering with the proper functioning of the other mechanisms of the machine and causing damage.

4. *The mechanism must be theoretically correct.* It happens sometimes that one sees some mechanisms in automatic machines which do the work apparently satisfactorily—in spite of the fact that they are theoretically wrongly designed. And a criticism often finds the answer: "What's wrong with it? It works, doesn't it?" Nevertheless, if the necessary correction, which is sometimes very simple indeed, is made—if the

mechanism is made to be theoretically correct—the good result is immediately apparent, be it reduction of noise, improved life expectancy, reduction of vibration or power needed, or possibly increased speed.

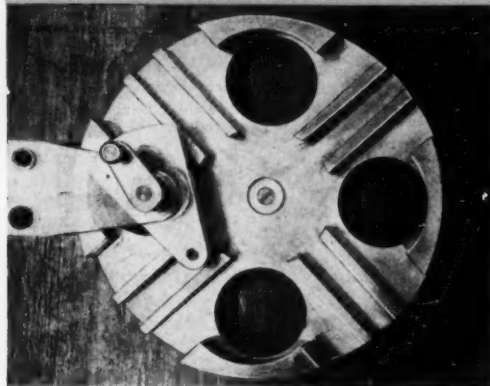
To make the mechanism theoretically sound means to have it geometrically and mathematically correct.

"There is as much truth in any science as there is mathematics in it." These words apply particularly well to the problems encountered in machine design.

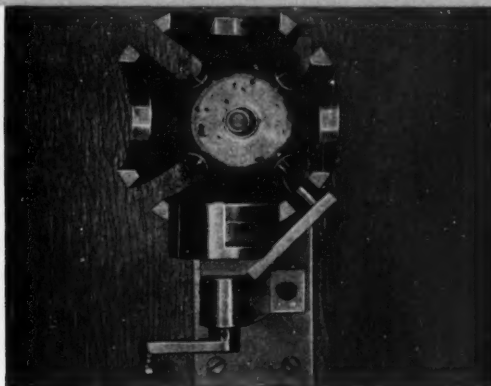
Intermittent and variable motions

The purpose of a large group of basic mechanisms used in automatic machinery is to produce *intermittent motion*. It is often desired, for some specific reason, that a certain part of the machine, like a turret, a

Other types of

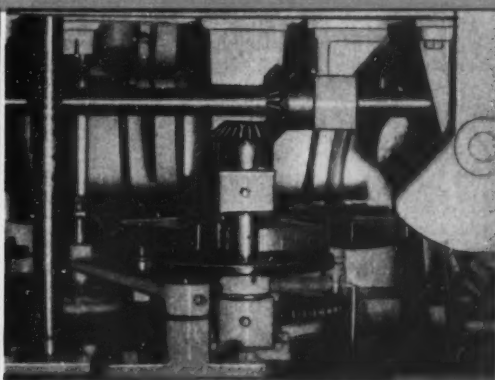
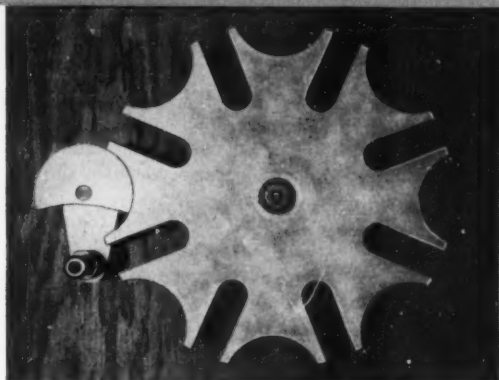


5. INTERNAL GENEVA.



6. SPHERICAL GENEVA.

and in application



3 and 4. EIGHT-SLOT external Geneva is shown at the left as a model and at the right as employed in the drive for the sandwich carrier turret of the Mayplex machine. The star may contain three slots as a minimum, usually not over 18.

carrier wheel or a paper feed roll, rotate only part of the cycle, resting during the remainder. The best known and most widely used mechanisms which serve this purpose are members of the "Geneva wheel" type.

A Geneva drive consists of a rotating crank, the driver, which carries a roller on one end that fits into slots of the driven member, and the "star." The star may contain three slots as a minimum and usually not more than 18 as a maximum. If the roller enters the slot from the outside of the star (or on the large radius), the drive is called "external Geneva;" otherwise, "internal Geneva." In all cases, the geometrical condition has to be met that the drive roller enters and leaves the slot radially; the angle between slot and drive-arm center line must be 90 deg. in the starting and finishing

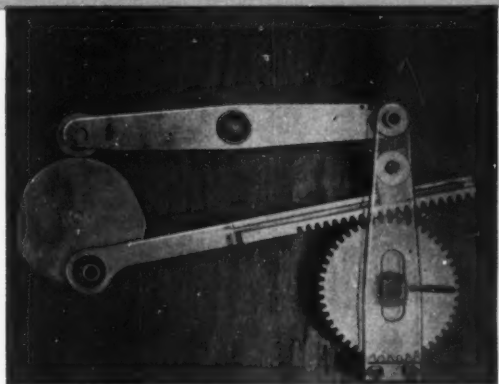
position, because only in this case does the velocity curve pass through zero, thus effecting shock-free operation.

The following geometrical conditions prevail in an external Geneva:

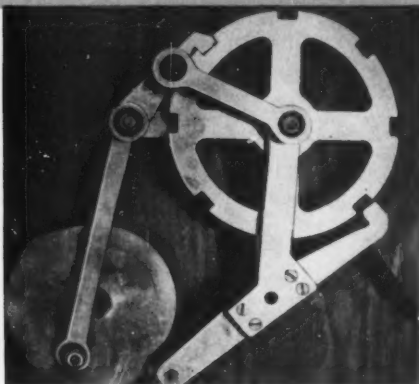
- Let n = Number of slots
- a = Crank radius
- ω = Angular velocity of crank
- α = Angular position of crank
- φ = Position of driven member corresponding to α
- $m = 1/\sin (180/n)$

Then the rest period of the star = $(1 + (2/n)) 180$ deg. and the motion period = $(1 - (2/n)) 180$ deg. The

intermittent-motion devices

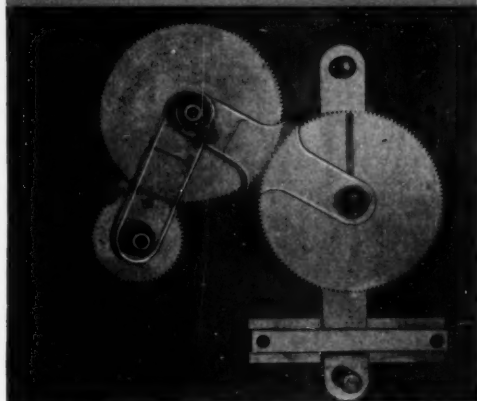


7. RACK AND CAM.



8. RATCHET AND CAM.

Three-gear drive



9 and 10. MOUNTED MODEL (above) illustrates the principle of the three-gear drive, which is simple and efficient for briefly interrupted motions, although its theory is an intricate one. The photograph below illustrates the use of this drive for motion governing the side-flap closer in Wright's cellophane-wrapping machine.



maximum angular velocity of the star = $\omega/(1 - m)$ and the maximum acceleration occurs where

$$\cos \alpha = \sqrt{((1 + m^2)/4m)^2 + 2 - (1 + m^2)/4m}.$$

Fig. 1 shows a model of a four-slot external Geneva; Fig. 3, a model of an eight-slot external Geneva. To illustrate the practical application of the external Geneva, two partial views of the Mayplex sandwich-wrapping machine, built by Wright Machinery Co., are included. Fig. 2 shows the intermittent cellophane-feed drive, operated by a four-slot Geneva and Fig. 4

shows the drive for the sandwich-carrier turret, an eight-slot Geneva wheel.

As can easily be seen, the rest period of an external Geneva always exceeds the motion period. The opposite is true of an internal Geneva, a model of which is shown in Fig. 5. Which one to choose depends on the particular case, taking into consideration not only the required ratio between rest and motion and the angle through which the star has to rotate during one cycle, but also the forces involved, which in turn are determined by the maximum angular acceleration encountered.

Taking the same notations as before, the following mathematical connections prevail in an internal Geneva:

$$\text{Rest period} = 180 \text{ deg. } (1 - (2/n)).$$

$$\text{Motion period} = 180 \text{ deg. } (1 + (2/n)).$$

$$\text{Maximum angular velocity} = \omega/(1 + m).$$

Maximum angular acceleration occurs when the roller enters the slot and = $\omega^2/\sqrt{m^2 - 1}$.

A member of the Geneva group not so commonly known is the "spherical Geneva." It differs in two ways from the before-mentioned mechanism. First, input and output shafts are not parallel, but at right angles to each other; second, both dwell and motion periods are 180 deg., independent of the number of slots, the latter only affecting the angular displacement. A photograph of a model of this mechanism is shown in Fig. 6. The maximum angular velocity = ωm .

Still another way of achieving an intermittent drive is by employing the mechanism called "rack and cam" drive (see Fig. 7). Dwell and motion periods are here in the ratio of 180 deg. to 180 deg., the advantage of this drive lying in the fact that the angular displacement can be chosen arbitrarily in any amount, from a few degrees to several complete revolutions per cycle, by appropriately dimensioning the crank radius of the rack and the size of the driven pinion. The kinematic conditions of this drive resemble very closely those of a harmonic motion.

One of the oldest intermittent drives is the ordinary ratchet wheel, but it has the property of not being reversible, as mentioned before. A ratchet mechanism which is reversible, called the "ratchet and cam" drive, was developed by Wright Machinery Co. Its rotation changes with the rotation of the crank and it has, moreover, the additional feature of eliminating the noise caused by the returning pawl, which scrapes over the teeth in the conventional ratchet wheels. A model of the "ratchet and cam" drive is shown in Fig. 8, which should suffice to make its operating principle clear to the reader.

There are cases in which it is desired to have the driven member of an intermittent drive stop for a very short part of the cycle only, a condition which none of the foregoing mechanisms can meet, the shortest dwell being 60 deg. in the case of the very seldom used three-slot internal Geneva.

A mechanism which effects a very short stop is the "three-gear drive." It is highly interesting in its geometrical and kinematic aspects and very useful, being simple and efficient, though its theoretical background is rather intricate. It is beyond the scope of this article to discuss the mathematical foundation of this drive. Its driving gear rotates not around its center, but around a point located eccentrically to the center and imparts its motion to the driven gear by means of an idler which is free to swing around the center of the driven gear. The swinging motion, being superimposed upon the rotation, gives the desired effect, which even can be varied by choosing the appropriate center distance between driver and driven gear. It can be achieved that the driven gear either stops momentarily, or slows down only without actually stopping, or even reverses its motion during a short part of the cycle.

A model of this three-gear drive is shown in Fig. 9. It was used to advantage for the motion governing the side-flap closer in Wright's machine for wrapping packages in cellophane (Fig. 10).

Naturally, there are many more intermittent and variable speed drives in existence and some based upon entirely different principles, but the purpose of this article is to show only a very few typical mechanisms used in automatic machinery. Those discussed up to now produce intermittent and variable speed motions, but these are not the only ones which are required in a machine.

Various other mechanisms

There are, for instance, as a special subject, the *straight-line motions*. It is often either not possible or not desirable simply to captivate the part which moves in a straight line between fixed guides, as for example the cross head on a locomotive. Considerations of space and friction conditions may prevent this.

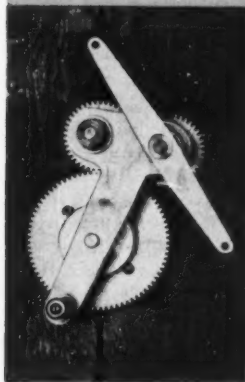
One of the many devices which may be used in this case is the "astroid gearing" (see Fig. 11). It consists of a stationary "sun" gear, an idler and a planet gear of half the size of the sun gear. Two certain points on a bar fastened to the planet gear describe geometrically true straight lines, all other points on the bar describing ellipses. If a circle rolls without sliding on the inside of a circle of double the diameter, each point of the rolling circle describes a straight line. Use is made of this fact in a straight-line drive employing an internal spur gear. The above-described drive circumvents the use of the more expensive internal gear and achieves the same effect by introducing an idler, making all gears standard external spur gears.

A slight modification of the "astroid drive" produces an effect which quite frequently is sought for. If sun and planet gear are made the same size, then the before-mentioned bar will move in a circle, but always remaining parallel to itself. This mechanism, called "hypocycloid parallel motion" (Fig. 12) is used, for instance, to punch holes into a continuously moving paper or foil web.

A very useful, though not widely known, trick to avoid gears or a chain for driving parallel shafts is the "drive frame" (Fig. 13), cheap and simple, but good only for moderate speeds due to the unbalancing effect of the frame.

It happens sometimes that the engineer conceives an idea for a mechanism which for the time being is of no practical value, interesting as the mechanism and the motion in itself may be. This is the case with the last of our selection, the "two-teeth gear," an outgrowth of a geometrical consideration (Fig. 14). If one gear is turned, all the others turn in the same direction. The efficiency is low and no practical application is known as yet, but perhaps some day it will prove useful and, if not, mathematics has at least once again produced something true.

Various principles of automatic mechanisms



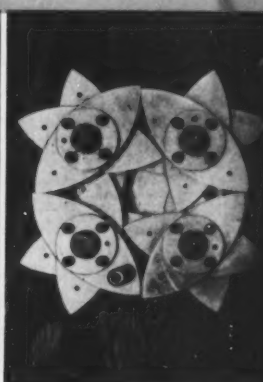
11. ASTROID GEARING.



12. HYPOCYCLOID.



13. DRIVE FRAME.



14. TWO-TEETH GEAR.

Fundamentals of package function

AN OUTLINE AND DISCUSSION OF SIX IMPORTANT FOOD PRODUCT PROPERTIES

AND THEIR REQUIREMENTS IN PACKAGING. By L. W. Elder*

The subject of packaging, even in its simplest technical aspects, is so broad that it will be necessary to define the specific areas to which this discussion will be confined. There will be little space given to metal cans and glass bottles, and nothing about shipping cases, drums and barrels, although each of these subjects has an interesting story of its own. Major attention will be centered on paperboard packaging and what has become known as "flexible packaging" for food products—retail units fabricated largely from paper and paper products modified by coatings and laminations, plastics, foils, etc.

The cardinal principle of functional package design can be stated very simply. The properties of the product to be packaged and the conditions to be met in merchandising channels determine the package protection required. In practice, this principle is often qualified by considerations of costs and of conventions established by the trade. Before proceeding with further detail, we would like to outline six important product properties involved in packaging:

1. The tendency of a product to gain or lose moisture as influenced by external humidity conditions.
2. Susceptibility to spoilage by atmospheric oxygen.
3. The tendency to lose volatile flavors or pick up foreign odors as influenced by temperature, ventilation and degree of segregation in shipping and warehousing.
4. Seepage of fat or oil as influenced by temperature and stacking pressure.
5. Susceptibility to insect infestation dependent on housekeeping conditions in transit, warehousing and retail outlets.
6. Susceptibility to sifting, specifically for dry products of small particle size as affected by vibration and impact in loading, unloading and transit.

Moisture-humidity relationship

In discussing the hygroscopicity of food products, it will be convenient to present three broad classifications. The first is that of fibrous and starchy products as exemplified by flours and cereals. Fig. 1 shows the typical relation between moisture content and relative humidity for this class of products. The data for construction of such curves can be obtained by methods described by W. A. Wink (1)† of the Institute of Paper Chemistry and by Legault, Makower and Talburt (2)

of the Western Regional Research Laboratory. By mere inspection of these curves it is not possible to establish a critical point, that is, a relative humidity and moisture content at which the product will become unsalable. However, experience has shown that most breakfast cereals become inedible because of toughness and stale flavor in the range of 5 to 7% moisture, corresponding to relative humidities in the 10 to 30% range. Ordinary wheat flour, on the other hand, will not spoil until its moisture content exceeds the 12 to 15% range, where musty flavors develop as a result of the growth of micro-organisms. Sustained humidity in the neighborhood of 80% or higher is usually required to produce this effect. Recognizing that summer humidity conditions over most of the country are always in excess of 30%, but exceed 80% only in limited areas, and for relatively short periods, it is easy to understand why milled flour can be shipped in cotton bags and plain chipboard cartons, whereas toasted breakfast cereals require more costly and complex packages.

A second class of products is represented by the curve shown in Fig. 2. This group includes the dried syrups, which have the properties of super-saturated solutions. They are usually amorphous, plastic and very hygroscopic. Critical moisture levels are usually in the range of 2 to 4%, corresponding to relative humidities in the neighborhood of 10%. At higher moisture levels these products become sticky and undergo plastic flow into a gummy mass. The critical moisture content for this type of product is partly dependent upon temperature, since plastic flow will occur at lower moisture levels, the higher the temperature. A typical example of this class is hard candy.

The third group covers the crystalline soluble solids exemplified by sugar, table salt, food acids and salts, and their mixtures as offered to the packaged-food trade. As shown in Fig. 3, the individual crystalline solids exhibit very little moisture absorption until the critical humidity is reached, at which point a film of saturated solution is formed. Continued exposure at or above the critical humidity will result ultimately in complete solution or deliquescence. The critical humidities for most of these products, as individuals in the pure state, are in the range of 60 to 80%. For this reason cane sugar and table salt require and get very little moisture protection in the retail trade.

Table I lists a number of carbohydrates, food acids and their salts in the order of increasing deliquescence. For materials of this class the critical relative humidity

* Dr. Elder is director of the Products Evaluation Laboratory, Central Laboratories, General Foods Corp., Hoboken, N. J. This article is based on an address given before the Chicago Section of the American Chemical Society.

† Figures in parentheses refer to "Bibliography" appended.

**TABLE I—CARBOHYDRATES, ACIDS AND SALTS
ARRANGED IN ORDER OF INCREASING
DELIQUESCENT**

	Deliquescence index, H_z	Critical relative humidity, H_{zc}
Lactose hydrate	3	97
Maltose	4	
B-Lactose	5	
$\text{NaH}_2\text{PO}_4 \cdot 12\text{H}_2\text{O}$	5	
Trisodium citrate $5\frac{1}{2}\text{H}_2\text{O}$	8	
$\text{NaH}_2\text{PO}_4 \cdot 7\text{H}_2\text{O}$	10	
Glucose (cerealose) monohydrate	13	
Sucrose	14	86
Glucose (cerealose) anhydrous	17	83
$\text{Na}_2\text{HPO}_4 \cdot 2\text{H}_2\text{O}$	20	
$\text{NaH}_2\text{PO}_4 \cdot 2\text{H}_2\text{O}$	20	
Salt (NaCl)	25	
$\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$	28	
Na_2HPO_4 anhydrous	28	
Citric acid monohydrate	28	72
Levulose	29	71
NaH_2PO_4 anhydrous	30	
Citric acid, anhydrous	32	
Spray dried soluble coffee	65	35
CaCl_2 anhydrous	99	

can be calculated by dividing the vapor pressure of the saturated solution by that of pure water at the same temperature. Since compounds which are highly deliquescent have saturated solutions of low vapor pressure, a deliquescence index has been calculated by subtracting the critical relative humidity from 100%.

An interesting problem arises in estimating the deliquescent properties of mixtures of crystalline soluble solids. Very little published information appears to be available on this subject. Owing to the difficulty during the war years of procuring sugar and certain other commodities needed in formulating a dry dessert product mixture, it became necessary to multiply the number of soluble crystalline components in the mixture. Under summer conditions, it was found that the filling mechanism on the packaging line frequently jammed due to an accumulation of sticky solids. In an effort to guide the selection of materials to be used and to estimate a limit as to their number, the following "rule of thumb" was developed: Starting with the assumption, admittedly ideal, that the critical

**TABLE II—CRITICAL HUMIDITIES FOR MIXTURES
ESTIMATED FROM THE CALCULATED CRITICAL
HUMIDITIES OF THE COMPONENTS**

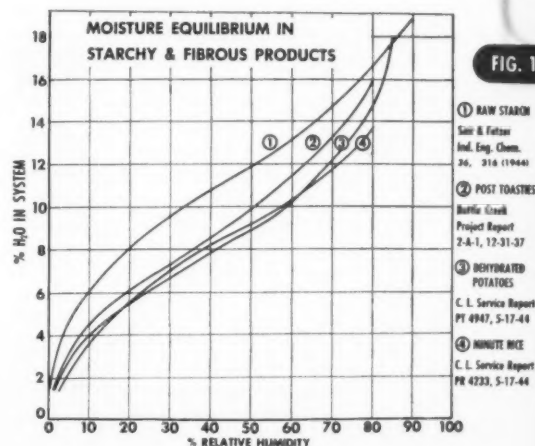
Example A		Example B	
	%		%
Sucrose	86	Sucrose	86
Citric acid hydrate	72	Glucose hydrate	87
Sodium citrate	92	Citric acid hydrate	72
		Na_2HPO_4 anhydrous	72
		NaH_2PO_4 monohydrate	72
H_{zc} for Mixture A		H_{zc} for Mixture B	
$= 86 \times 72 \times 92$		$= 86 \times 87 \times 72 \times 72 \times 72$	
$= 57\%$		$= 28\%$	

relative humidity is numerically equal to the mol fraction of water in the saturated solution, expressed as per cent, it was reasoned that the ideal solution saturated with respect to multiple components would be in equilibrium with a relative humidity equal to the product of the critical humidities of the several components. The results of such a calculation are shown in Table II, where a simple three-component mixture is compared with a five-component mixture. These results qualitatively accounted for the observations made in packing these two products. It must be emphasized that there is at present no quantitative experimental evidence to support this kind of calculation.

Water-vapor barriers

Having considered the properties of food products with respect to moisture absorption, let us turn now to a consideration of packaging materials available for keeping such products in salable condition through merchandising channels. The water-vapor permeability of waxed papers, plastic and other protective films has been studied in many ways over the past 15 years or more. Early methods and their results are summarized by Carson (3) in a U. S. Bureau of Standards Miscellaneous Publication. The subject is well covered in a theoretical and practical way by C. R. Oswin (4) and in this country, for organic films, by Doty, Aiken and Mark (5, 6). Since temperature coefficients are well established only for a few materials, those intended for packaging frozen foods need to be evaluated at their use temperature, usually zero deg. F. This complicates the procedure, since the vapor pressures and permeability rates involved are comparatively low. Test methods based on the use of a "sweep gas" have been published by Pierce and Helms (7) of the American Can Co. and by D. W. Davis (8).

Since the test conditions and methods of expressing results varied widely at the outbreak of World War II from one laboratory to another, an increasing need was



felt for a standardized, simple and expedient method for rating water-vapor-protective packaging materials. An apparatus and method developed by C. A. Southwick, Jr. (9), while he was in charge of packaging research and development for General Foods, appears to have met these requirements. Anhydrous calcium chloride contained in a shallow dish is used to absorb water vapor passing through the test sheet, which is sealed over the wide mouth of the dish. The test atmosphere is maintained at 100 deg. F. and 90 \pm 2% relative humidity. Test results are usually expressed in terms of grams of water transferred per 100 sq. in. of test material per 24 hrs. Those who prefer not to mix their metric and English units can convert to grams water per square meter per 24 hrs. by multiplying by the factor 15.6.

Table III lists a few of the better-known flexible protective packaging materials arranged in order of decreasing water-vapor permeability. As mentioned at the outset, the selection of packaging materials is necessarily influenced not only by the protective qualities, but also by considerations of cost. Although, in general, improved protection against water vapor implies higher cost, there are some notable exceptions, as shown in Table III. Superficially, it would appear that the best protection per unit of cost would be provided by waxed glassine. As will be mentioned later on, there are other factors to be considered in deciding what is a reasonable cost in view of other functions as well as water-vapor protection.

Having rated products in terms of critical humidities and packaging materials in terms of their water-vapor permeabilities, how do we proceed to put these two bits of information together in order to arrive at a decision as to what material should be used to package a given product for optimum protection against moisture pick-up? Obviously, some estimate of relative humidity in merchandising channels must be invoked.

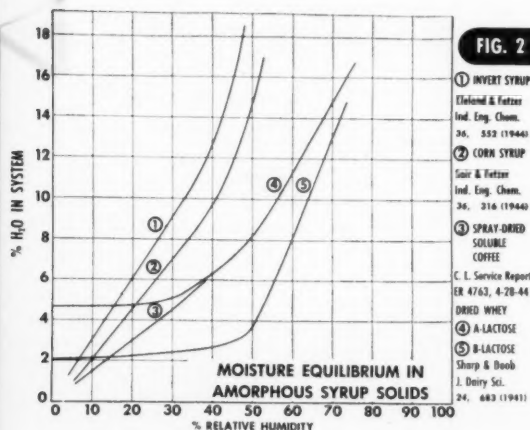
Unfortunately, no simple and direct method has yet been developed for relating these three variables so

TABLE III—WATER-VAPOR PERMEABILITY
(Gms./24 hrs./100 sq. in.)

Packaging materials	100 deg. F., 90% R. H.	Cost per unit area (cellophane = 100)
Pliofilm	2-5	174
Waxed sulfite	0.5-1.5	44
Polyethylene	0.9-1.2	122
Lacquered glassine	0.5	104
Wax-laminated glassine	0.5	139
MSAT cellophane	0.3-0.8	100
Waxed glassine	0.2	70
Saran	0.2	291
Metal-foil laminates	0.0-0.3	300
¹ / ₄ -lb. electrolytic tinplate	0.0	810

that the knowledge of any two will establish the value of the third. An interesting approach to such a relation has been published by the research laboratory of General Mills (10). Instead of starting with the observed water-vapor permeability of a flat sample of the packaging film, these authors observed the permeability of the fabricated package with its normal contents exposed to conditions of 66% relative humidity at 82.5 deg. F. Proceeding on the principle that the rate of water-vapor gain is approximately proportional to the absolute water-vapor-pressure difference existing between the material and the atmosphere to which the package is exposed, these authors by a mathematical method of approximations arrived at a calculated shelf life in various geographic areas which is observed to agree well with results of actual field studies in the same areas on the same package material. Borchard and his associates at General Mills point out that, as an alternative, the shelf life of a given package can also be estimated by actual field tests in selected test areas. However, they conclude that "the accumulation of shelf-life data by actual field tests in all market areas for all seasons becomes a very elaborate, expensive and time-consuming procedure." They conclude that shelf-life data can be obtained much more readily by calculation from laboratory measurements of package performance plus weather data, if a number of assumptions are made. The principles of this method would no doubt be used more widely if a simpler and less tedious mathematical procedure were developed for relating the three variables.

In the General Foods research organization it happens that there is already established a procedure for sampling our own and competitive products on a regular schedule from retail outlets for both product and package evaluation. This survey sampling, while perhaps inadequate for high statistical significance, serves to give us a means for estimating the actual time elapsed between production of our products and their sale from the grocery shelf and of the moisture pick-up occurring during these intervals, which may range all the way from two months to one year, or longer in exceptional cases. In practice, therefore, we can in nearly every instance learn how our packaging materials compare with those of our competitors and whether our products



remain below their critical relative humidities during the shelf life actually encountered in each of the several geographic areas sampled. If such a survey reveals that our product is over- or under-packaged with respect to actual requirements for the most critical area, alternative packaging materials are then selected for test having water-vapor permeabilities ranging above and below the material currently employed. Laboratory-made packages are then compared under artificially controlled and accelerated conditions in the laboratory to show what limitations may be imposed by folds and seals produced under ideal laboratory conditions. The next step consists of making similar packages on existing factory equipment to show whether or not one or more of the alternative materials is damaged in the process of high-speed package forming. Two or three materials which survive this series of tests are finally used to make enough packages on full-speed plant equipment for a field test in selected geographic areas. Final selection for the optimum material to use must be based on merchandising factors of shelf life desired in the most critical areas and on cost.

We have dwelt at considerable length on water-vapor protection because this is probably the most important single variable involved in the spoilage of foods packaged in flexible packaging materials and also because the greatest amount of experimental data has been accumulated in this area. However, much remains to be done, particularly in the development of simple mathematical or nomographic methods for combining the quantitative information regarding critical humidity of the product and average humidity existing in the sales area in such a way as to arrive at a numerical specification for the water-vapor permeability of the protective packaging material.

Protection against atmospheric oxygen

There are a few dried food products, exemplified by roasted coffee and dried whole milk, which are extraordinarily susceptible to spoilage by traces of atmospheric oxygen. Traditionally, these products have been packaged in glass jars with metal closures or all-metal cans either under vacuum or in an inert gas atmosphere. In view of the large price differential between tinplate on the one hand and almost any of the converted paper products or plastic films on the other, there has been a real incentive to develop a gas-tight package from flexible packaging materials. Several methods for rating the permeability of packaging materials to fixed gases have been proposed. These include methods based on measurement of pressure developed in an evacuated space sealed by the test specimen (11, 12) and methods based on volumetric measurement of the test gas diffused through the test specimen at relatively low absolute pressure differentials (13, 8).

The most successful hermetically-sealed flexible packages have been made by using a metal-foil laminated to a smooth-surfaced ply such as cellulose acetate film, the foil surface carrying a heat-seal coating. A

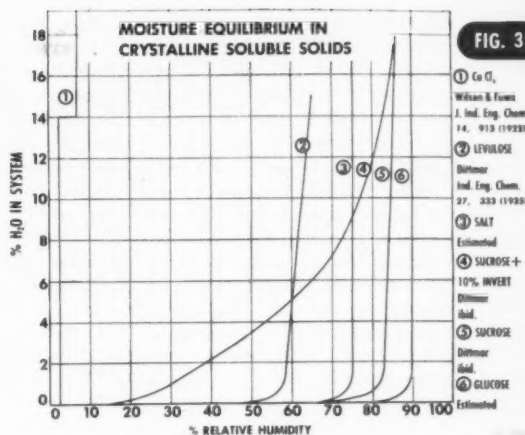


FIG. 3

third ply of strong paper is probably essential for mechanical strength. Such a structure has actually been successfully used in vacuum packaging coffee in the laboratory and a certain proportion of such packages has prevented the leakage of oxygen as well as a good can or well-sealed glass jar. However, no one has yet found how to make such packages at production rates of 60 to 90 per minute, comparable to the speed used on commercial can and glass packaging lines, without producing so many mechanically imperfect packages as to make the operation commercially impractical. This field remains an interesting challenge to the packaging engineer. However, small packages are now being successfully produced commercially (not vacuumized) from metal-foil laminations for specialty products.

Odor transfer

Many food products, notably those containing high percentages of oil or fat, can become unsalable by absorption of foreign odors. This is also true of delicately-flavored materials such as tea. Off odors can arise either from other products stored in the same warehouse or from off odors sometimes encountered in the paperboard used to make a package carton itself.

A rather unique problem involving odor transfer arises in the case of packaged prepared-cereal products. The most desirable physical properties in such cereals are achieved when the moisture content is held below 7%. It is precisely under these very dry conditions that off odors can accumulate, due to oxidative deterioration of the fractional percentage of fat contained in these cereals. Normally, such odors are not a serious obstacle if the package allows a reasonable amount of free ventilation. However, the specification of a maximum moisture content of 7% definitely prescribes a water-vapor barrier for successful merchandising. In this case, the ideal package should have a selective permeability for organic vapors and a high degree of impermeability to water vapor.

A listing of over 200 compounds representative of

volatile flavors has been published in the monograph, "Flavor," by E. C. Crocker (14). Mr. Crocker's monograph lists these compounds in Chapter 8, classified according to their vapor pressures at 20 deg. C. It is quite remarkable that the vapor pressures of these so-called volatile materials do not exceed 3 mm. and the range extends down as low as 0.001 mm. A few selected examples taken from Mr. Crocker's listing are shown in Table IV, together with their vapor pressures expressed both in mm. of mercury and as p.p.m. by volume in saturated air. It is to be noted that although air saturated with vanillin contains only 7 p.p.m. by volume of this compound, a quantity about $1/3,000$ of the volume of water vapor in air saturated at 20 deg., nevertheless vanillin is detectable by odor in concentrations ranging from $1/100,000$ to even lower fractions of its concentration in saturated air. The uniqueness of these compounds apparently resides in the sensitivity of the human nose toward their presence rather than extreme volatility in the normal sense of the word. The nature of the problem involved in measuring the transmission of such vapors through packaging materials is shown in Table IV by a comparison of their

TABLE IV—A FEW ODORS AND VOLATILE FLAVORS

	Vapor pressure (20 deg. C.), mm.	Parts per million by volume	
		In saturated air	Detectable by odor in air
Vanillin	0.006	7	7×10^{-5} to 3×10^{-8}
Citral	0.01	130	
Benzaldehyde	0.82	1,080	
d-Limonene	1.2	1,600	
Butyric acid	1.0	1,300	
Heptaldehyde	2.5	3,300	
Allyl mustard oil	2.54	3,350	
Water	At 20 deg. C. (68 deg. F.)	17.5	23,200
	At minus 17.8 deg. C. (0 deg. F.)	0.94	1,240

vapor pressures with that of water at minus 17.8 deg. C. (zero deg. F.). In both instances the driving force available for bringing about permeation of packaging materials is quite low.

A practical demonstration of the low escaping tendency of a typical aromatic fraction of a food product was obtained some years ago in this laboratory when it was shown that freshly-ground coffee can be ventilated with a volume of nitrogen 5,000 times as great as the void space of the coffee itself without significantly lowering the cup quality of the coffee as judged by qualified experts (15).

An excellent treatment of odor as related to chemical structure was published by Moncrieff in 1943 (16).

There is at present no standardized method for rating packaging materials in terms of organic-vapor permeability, comparable to that described for water-vapor permeability. Some of the properties of organic vapors which might be used in developing test methods

TABLE V—MINIMUM AMOUNTS OF VAPOR
DETECTABLE BY VARIOUS MEANS

	Mg.	Cc.*
1. Microbalance		
(a) Loss in weight of test cell	0.01	0.0014
(b) Gain in weight of absorbent	0.01	0.0014
(c) CO ₂ + H ₂ O by combustion	0.003	0.0005
2. Gas interferometer (100 cc. total carrier gas volume)	0.02	0.0028
3. Spectrophotometer		
(Ultraviolet, Log E = 4)	0.20	0.028
(Ultraviolet, Log E = 5)	0.02	0.0028
4. Polarimeter (d-Limonene, $\alpha_D = 125$)	2.00	0.2800

* Assuming vapor density averaging 7 mg./cc.

are listed in Table V (17). In this laboratory a beginning has been made in using ultraviolet absorption by a test vapor after it has been picked up in a small volume of liquid absorbent, on the downstream side of the test sheet. It is too early to state results in detail. General experience shows that best protection against odor transfer is provided by metal foil, as might be expected. Next to foil, best protection is provided by such plastic films as saran and the highly hydrated forms of cellulosic materials such as cellophane and glassine. The latter are significantly superior in resisting the passage of organic vapors when coated either with paraffin wax or the conventional lacquer coatings.

Seepage of fat or oil

Oddly enough, such high-fat products as butter and lard may not present as much of a packaging problem from the point of view of fat seepage as some other food products, because the former are normally and conventionally handled under refrigerated conditions under which the fat is substantially solid. The most important factors involved in determining the degree of protection needed against fat seepage are the relative proportion of absorbent solids such as fibre, starch and protein in relation to the fat, the melting point of the fat and the moisture content of the non-fat solids. Broadly speaking, the packaging materials which are good barriers for organic vapors are also grease resistant; namely, metal-foil laminations and highly hydrated cellulosic films such as cellophane and glassine. Paper impregnation with proteins such as zein and casein gives moderate grease protection. The chlorinated plastics such as polyvinyl chloride and polyvinylidene chloride and some other plastic films and coatings are excellent grease barriers. Standard methods for evaluating greaseproof qualities are provided by the TAPPI turpentine test, which can be modified to employ the particular oil or melted fat involved in the product under investigation.

Infestation and sifting

These two problems connected with such food products as flours, dry pudding mixes, etc., involve purely mechanical aspects of package forming. Broadly speaking, good protection (Continued on page 196)

**NOW...
LOW COST PLASTIC FILM
up to 72" wide on the RC-3**



COLORS AND EXTRUDES IN ONE OPERATION

Here's a new low-cost way to make all kinds of thermo-plastic packaging film and seamless tubing. It's the amazingly versatile RC-3 that costs only a few pennies an hour to run.

Imagine being able to make high quality plastic packaging films in widths up to 72" (polyethylene) and as thin as .001". Imagine as well, a machine able to color and compound inexpensive raw materials, then extrude them in finished form—all in one easy, con-

tinuous operation! And the RC-3 is so easy to run that it requires a minimum of attention and labor.

That's not all. The RC-3 is so small it occupies less area than a card table . . . and turns out as much as 70 pounds per hour of finished plastic film or sheeting.

You will want to know more about the RC-3 and the ways in which it can make quality plastic film at lower cost than you ever thought possible. Send for details.

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Questions and Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 122 East 42nd St., New York 17, N. Y. Your name or other identification will not appear with any published answer.

Laminating foil to paper

QUESTION: We wish to laminate paper on both sides with aluminum foil (paper in the middle) and while there is no difficulty in glue-backing one side, we are seeking a suitable and improved adhesive for the other. We would like to know what types of adhesives are available for this process and would point out that, to prevent delamination and corrosion, an adhesive containing neither water nor a solvent is what we are after. We would also like to know the technique employed in the laminating execution.

ANSWER: The problem of laminating foil to either side of paper is essentially a problem of using laminating agents which have no volatile components at the time the laminating operation takes place. This means that any water or solvents must be removed from either the paper or the foil before the final lamination takes place. The best way to do this is to use a thermoplastic laminating agent for the last combining operation, or even for both laminations. The particular choice of laminating agent will depend upon the requirements of the laminated structure. For many purposes, modified paraffin wax combinations are entirely satisfactory and such laminating agents can be applied by heat without solvents or any volatile components. If greater durability is required, then there are many possible synthetic resin combinations which could be used either directly or in an emulsified, dispersed or solvent solution. If emulsions, dispersions or solvents are used, they can be coated on either the paper or the foil (preferably the latter), the volatile portions removed and the combining rolls heated to insure fusion of the surfaces when the plies come together. These techniques are very simple to follow, are capable of high-web speeds and their cost is not very much greater than conventional glues.

REPRINTS AVAILABLE

Requests for tear sheets of the August article "Polyethylene: Uses and Prospects," by Technical Editor Charles A. Southwick, Jr., have been so numerous that the supply of tear sheets has been exhausted. Reprints are now available, however, at prices of 50¢ each for 1 to 9 copies; 35¢ in quantities of 10 to 49, and 25¢ each for 50 or more. Orders should be sent promptly to the Reprint Dept., MODERN PACKAGING, 122 E. 42nd St., New York 17, N. Y.

Shipping liquids by parcel post

QUESTION: We are interested in several means to ship by parcel post containers carrying one pint and two pints of a liquid product we propose to manufacture.

ANSWER: It would be necessary for you to be sure that your product is stable—that is, will not ferment or develop pressure under agitation and elevated temperatures—and that it does not contain solvents and certain other components if you are to consider parcel post shipments. If your product meets these requirements, then it should be possible to ship it either in a screw-cap or hermetic can or glass jar providing proper packing is used, such as an outer container of light-weight wood or properly designed fibre or corrugated board. Such containers if properly designed, packed and labeled should be entirely satisfactory for the shipments you propose. Another possible means would be the use of polyethylene bottles with a proper type of closure. These bottles are tough, chemically inert and unbreakable. Polyethylene bottles should be shipped in a rigid paper tube to protect them from compression. Polyethylene in a properly designed shipping tube should be very satisfactory, because the low tare weight would mean a reduction in parcel post charges. It is suggested however, that you check your final package with postal authorities to be sure that you meet all rules and regulations and to obtain their advice in minimizing shipping costs.

Application of tear tape

QUESTION: We are interested in a machine that applies a cellophane tear tape such as is used on some cigarette packages for a carton packaging a cleaning compound which we propose to overwrap.

ANSWER: Opening tapes are not applied by a separate operation to a cigarette or other overwrapped package. If the tape is to be an effective means of tearing off the wrapper, then it must be inside the seam of the wrapper. And this can only be done by putting the tape into position during the wrapping operation. You should contact the companies who specialize in wrapping machines and they will supply you with a wrapper equipped to handle the opening tapes, or will equip your present wrapper to do so. The wrapping machine manufacturers can also advise you on the sources of this tape.

Polythene Closures

are low in cost • fit snugly • are easy to remove



Read how the unusual features of Du Pont Polythene can help you produce better packages.



Many other types of closures are made of polythene, too. This hinge-type closure-dispenser is molded in one piece and is simply plugged into the polythene bottle. When the hinge is lifted and the bottle is squeezed, it emits a fine spray. (Closure molded by Shaw Insulator Co., Irvington, N. J.; polythene bottle blow-molded by Plax Corp., Hartford, Conn., for The Nestle-Le Mur Co., Meriden, Conn.)

MORE PRACTICAL! More sales-appealing! That's what many producers are learning about closures and other packaging items of Du Pont polythene plastic.

Polythene closures are resilient—allow slight variations in container-top dimensions. They fit snugly, yet permit easy removal. And they offer unusual versatility in design. Molders can supply them in many attractive colors, in conventional or novel designs. They're moistureproof, tasteless, odorless, non-toxic... aren't affected by most packaged ingredients. Because of their resilience and inertness, they require no liners. They're economical, too. Polythene is low-priced. And its light weight and strength in thin sections mean more closures per pound.

Today you'll find polythene in many types of closures (plug-type, screw-on, snap-on, etc.) and in other packaging uses from molded bottles for deodorants to heat-sealed wraps for food products. Write for data on polythene for packaging. Get acquainted with Du Pont polythene today... profit with it tomorrow.

Polythene molding powders are made by the Du Pont Company. This plastic is

supplied by extruders, molders, and other processors in film 1 to 30 mils thick, widths up to 112 inches; lay-flat seamless tubing, widths from 2 to 56 inches; molded closures and containers, and other forms. We'll gladly suggest suppliers.

* * *

E. I. du Pont de Nemours & Co. (Inc.)
Plastics Department

Main Sales Offices: Empire State Building, 350 Fifth Avenue, New York, N. Y.; 7 South Dearborn St., Chicago 3, Ill.; 845 East 60th St., Los Angeles 1, Cal.

(Polythene closures molded by Sameric Engineering Co., Riverdale, New Jersey, for Colgate-Palmolive-Peet Co.)



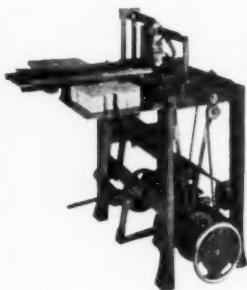
SPEED AND ECONOMY

Mechanization is the key to greater profits and success. Peters' Carton Packaging Machinery has been developed to help you automatically produce better cartons with greater SPEED and ECONOMY.

They are important factors in carton packaging operations, since they save on time, labor and materials.

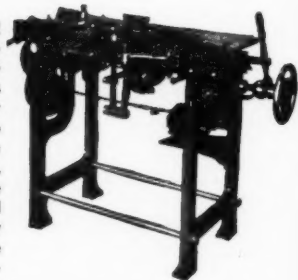
Besides the "Junior Model" machines illustrated below, PETERS has available a "Senior" line of packaging machines to fill high production requirements.

Send us samples of the cartons you are now using. We will gladly make recommendations for your requirements.



This PETERS JUNIOR CARTON FORMING AND LINING MACHINE sets up 35-40 cartons per minute requiring only one operator. Can be made adjustable to set up several carton sizes.

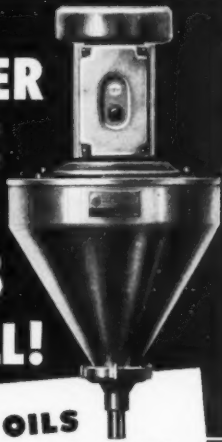
This PETERS JUNIOR CARTON FOLDING AND CLOSING MACHINE closes 35-40 cartons per minute, requiring no operator. After the cartons are filled, they enter machine on conveyor and are automatically closed. Can also be made to close several different size cartons.



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Guardianship

Most difficult of the many penalties of leadership is the guardianship of standards.

To pattern after a leader is normal. For it is the leaders who pioneer and show the way . . . who establish the precepts and standards of practice. But they who would profit through lip service only, to those standards, steals but momentarily that which enriches them not and, denies the mantle of respect under which cover is furtively sought.

But, for that interim period during which the mills of the Gods are grinding slowly, and exceeding small, and the inexorable and inescapable working of the laws of reputable behaviour have im-

posed their sentences, it is hardly fair that the buyer of a product should invest under the mask of misapprehension so cunningly fabricated for his confusion.

So, certain deterrents in the form of patents, copyrights, trade names and trade marks were devised.

Therefore when we stress the fact that the name TUPPER (in either of the two forms you see here) is at once a trade mark . . . a trade name and so say, in effect, "this is our pledge that we will keep faith with you", it is an acceptance and acknowledgment of our obligation to shoulder our share of the burden of guardianship of standards for your protection.



This smart table setting with TUPPERWARE pictures a breakfast table that says "Good morning" and means it. This is as it appeared in the article "Housewares Award" to Tupper Corporation in the September 1948 edition of Modern Plastics.



Bearing the name TUPPER are many items, designed for and accepted as, definite contributions to the American way of Life. These same pieces possess like attributes when employed in the packaging of equally worthy products and greatly enhance their "buy" appeal. But if, after discussion with our Development Department, you feel your packaging requirements would best be served with a specially designed container you may be assured it will be endowed with identical values.

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Equipment and Materials

TUBE FILLER FOR NEW LARGE SIZES

"Giant" sized collapsible tubes can be filled automatically with a new filling, closing and sealing machine now being produced by the F. J. Stokes Machine Co., Philadelphia.



The filler, Model 79, is designed to handle liquid materials only. It has a production rate of 15 to 30 tubes per min. and requires only one operator. The double-fold DiamonLock clipless closure or the double-fold Westite hermetic closure—when the machine is equipped with heated jaws and control—can be provided. The filling mechanism is of special bronze with a hopper of stainless steel. Automatic ejector of tubes and conveyor belt can be furnished, together with pre-forming device to prevent possible mutilation of the tubes. The machine fills tubes from 2 in. in diameter to 10 in. in length.

AGITATING DEVICE FOR HOPPERS OR BINS

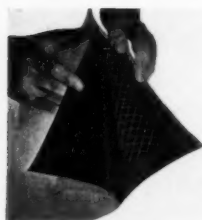
A new device for injecting small volumes of low-pressure air into pulverized materials which tend to pack and do not flow readily from bins, hoppers and chutes is announced by the Bin-Dicator Co., Detroit. Called "Bin-Flo Aerators" the unit consists of a small plate $3\frac{3}{4}$ by $7\frac{1}{2}$ by $\frac{1}{2}$ in. thick with a special fabric diffuser through which the low-pressure air is pumped. The plates can be located at points where the flow of material is restricted.

IMPROVED BAR CREASER FOR PLASTIC BOXES

Taber Instrument Corp., North Tonawanda, N. Y., announces the availability of an improved production model of the company's Thermocreaser machine which is designated as Model 123. Improved features of this bar creaser that makes right angle folds on sheet plastic materials include a toggle linkage providing faster up and down travel of the blade.

IMPROVED WATERPROOF PAPER

An improved grade of "diamond mesh" reinforced asphalt waterproof paper is being introduced by the Thilmany Pulp &



Paper Co., Kaukauna, Wis. The paper is produced by a dispensing dome that feeds the reinforcing material into the machine between two plies of asphalted kraft on an entirely new principle. The new process anchors the diagonal reinforcement to the edge strings, providing considerably greater resistance to tear, according to the

company. The accompanying illustration shows the reinforcement applied with the exclusive edge string "wrap-around" anchor.

GLASS TUMBLERS FOR DAIRY PRODUCTS

The Dairy Container Div. of Owens-Illinois Glass Co. is now offering a line of Libbey glass tumblers for packaging such



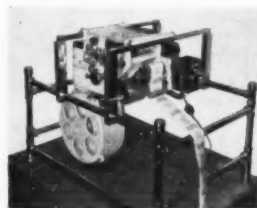
products as cottage cheese and sour cream. The line includes spray frosted colored tumblers, hostess-type tumblers and tumblers with ACL designs, which may be sealed with three different types of closures.

ADHESIVE FOR CELLOPHANE

Federal Adhesives Corp., Brooklyn, announces Acetate Flex Glue for use on S & S machines applying cellophane windows to boxes and cartons. The hot flex glue is said to give good adhesion without causing twisting or blistering.

PAPER BAND IMPRINTER

Of interest to bakers, confectioners, dairies and other packagers is the Schafer automatic band printer which is adaptable



to any wrapping machine to imprint special announcements or constant messages on a paper band to be wrapped around the product at the same time as the regular wrap. The printer is available exclusively from Schafer's Bakery Products Co., Detroit.

LOW-COST FILM EXTRUDER

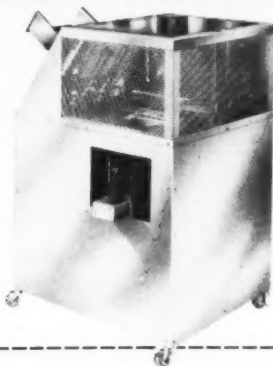
Of interest to the packaging field is the introduction in this country of a simplified, compact, low-cost extrusion machine capable of compounding and producing continuous thermoplastic films from 0.001-in. (1 mil) thickness up. The two-worm machine eliminates a separate compounding operation; it uses polyethylene, vinyl, acetate or other thermoplastic resins fed directly into the hopper in inexpensive, raw form, powder or granular. It will extrude either inflated polyethylene tubing up to 36-in. diameter (lay-flat tubing) or, by slitting a non-inflated tube, a single web up to 54 in. wide. By slitting the 36-in. inflated tubing, a sheet 72 in. wide can be produced.

The machine itself (exclusive of control cabinet) occupies floor space only 65 by 28 in. and weighs about 1,800 lbs., yet will turn out as much as 60 to 65 lbs. per hr. of finished product. Operating costs are said to be very low.

Among the features claimed for the machine are high

Combination deals?

Set up cartons
for them in
your own plant
automatically



New General Mills machine uses flat, unglued blanks . . . saves up to 15% on carton costs

Want to cut costs and add sales appeal to your combination offers and introductory packs? Switch to merchandising cartons set up by the General Mills Tray-Lock Machine. The 15% you'll save by using flat, unglued blanks will go far toward paying for colorful, customer-pulling carton designs. The machine delivers ready-to-fill cartons right to your filling line at speeds up to 90 per minute, eliminating slow, expensive hand set-up. It needs no attention other than keeping the carton blank hopper filled.

Cartons handled range from 1" to 18" in width, 2" to 14" in length and $\frac{3}{4}$ " to 6" in height. Almost any type of carton can be adapted for this fast, low-cost packaging method.

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I am enclosing samples of our present cartons and a description of our product. Please tell us how we can convert to automatic packaging.

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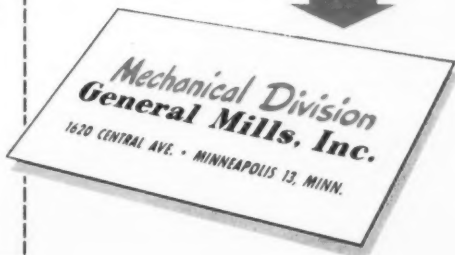
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For fine quality printing on pressure sensitive tape, paper, cellophane and silk, making labels or printing any paper up to 6" width.



Exclusive Automatic Dual Unwind and Rewind allows machine to run continuously while operator merely puts on unprinted rolls and removes printed ones.

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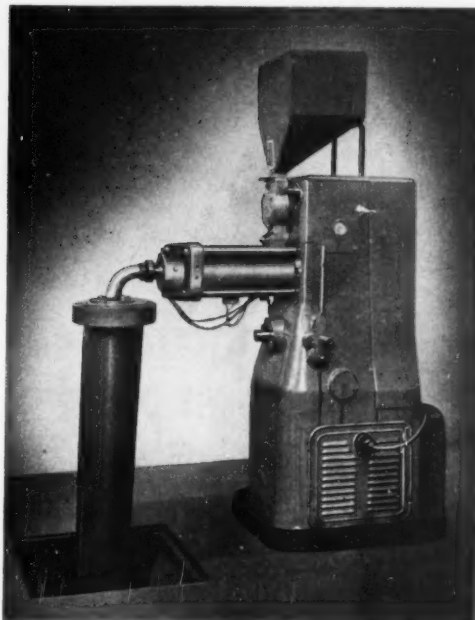
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Equipment and Materials

(Continued)

extrusion pressure, even with small batches; utmost uniformity of product and an automatic volumetric feed in the material hopper which can be varied in speed so that the



Windsor RC-3 compounder-extruder is shown discharging a continuous tube of film through opening in platform on which machine is installed.

quantity of material to be extruded can be increased or decreased without the use of external vibrators or other agitating devices. The extrusion chamber is heated electrically in two different sections, each with its own thermostatic control, and is equipped with a speed variator allowing the screws to turn at three different speeds. A cabinet housing all controls for both the 5-h.p., three-phase motor and the electrical heating system is standard equipment.

The machine, designated as Model RC-3, is manufactured by R. H. Windsor, Ltd., London, and will be distributed in this country by Jackson & Church Co., Saginaw, Mich.

COMBINATION ROTO AND LAMINATING PRESS

Inta-Roto Machine Co., Richmond, Va., announces the development of a rotogravure press that prints in multi-colors on cellophane, acetate, paper or foil and laminates the printed web to another web of paper, foil, cellophane or acetate in a single run through the press. The combined printing and laminating are done at the same high press speeds used for printing alone. The press comes in standard printing widths of either 20, 30 or 40 in.; larger or smaller sizes can be made to specifications. After leaving the printing stations, the web is coated with an adhesive at another station. The free foil, paper, etc., is then pulled from a second unwind

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THE FILLER . . . Compact, speedy, accurate. Fits any production set-up. Easily cleaned, quickly adjusted for changes of pack or container sizes. Fills products varying from liquids to heavy foods.

THE CAPPER . . . As handy as filler for change-over. Automatically timed for smooth production always. Built to take varying size screw caps and containers. Automatic feed adds to efficiency.



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WHEN YOU
SHOW WHAT
YOU'RE SELLING

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MODEL C-47

MANAGEMENT tells us sales jump when a product is packaged . . . in a Nuvopak container.

RETAILERS tell us a product is better displayed, protected and sells faster . . . in a Nuvopak container.

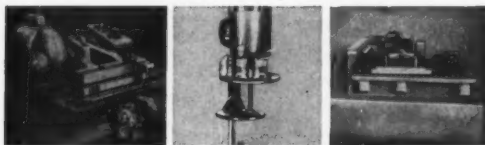
PRODUCTION MEN tell us it's faster, cheaper and easier to package a product . . . in a Nuvopak container.

NUVOPAK is tough, light weight and mass produced in a variety of sizes.

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SET-UP, FOLDING AND PLASTIC CONTAINERS



THE BEST IN

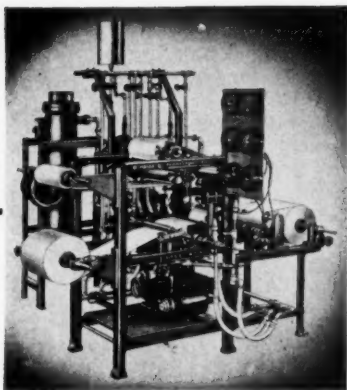
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NEW! TINS WITH TRANSPARENT PLASTIC COVERS . . .

Send for samples and packaging suggestions. New illustrated catalog of transparent boxes and displays and new line stock design tins AT YOUR SERVICE!

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Manufacturers

3260 W. Grand Ave. Chicago 51, Ill.

Equipment and Materials

(Continued)

stand and laminated to the printed web in a pressure mounting unit. The machine can be used for printing only, for laminating only, for lacquering only or for all of these combined. It works from roll to roll, or from roll to sheeter.

PROTECTIVE WRAP FOR GLASS

Sus-Rap Sales Co., Minneapolis, announces that its Sus-Rap—a suspension type wrap made of jute or kraft—is now being distributed nationally. The wrap is designed for use in



packing glass, mirrors, sensitive metal and plastic plates and other flat fragile objects, providing both horizontal and vertical support. The illustrations show how the wrap, which is supplied in a continuous roll form, is applied.

PAPER AND PLASTIC SHEET SLITTING MACHINE

A combination slitter, rotary laying and paper rewind machine which will slit 108 rolls of plastic binding from 54-in. web is offered by Central Tool & Mfg. Co., Chicago. Plastic binding tape or paper from 1/2-in. wide and up by 400 yds. long can be slit in less than 4 min., not including set-up time, according to the manufacturer. The machine is available from 36 to 72 in. sizes and handles 1 1/2 to 7 in. core diameters.

SEMI-AUTOMATIC WRAPPING MACHINE

The new Wrap Master, a semi-automatic wrapping machine manufactured by Schooler Mfg. Co., Glendale, Calif., has features of interest to pre-packagers. The machine is adjustable to wrap packages from 2 to 12 in. long, 3/4 to 2 1/2 in. high and 1 to 8 in. wide. A feature of the wrapping machine is a bottom seal placement which is said to increase wrapping speed 15 to 25%, eliminating the necessity of presealing. All of the heaters are thermostatically controlled.



ANTI-STATIC LIQUID FOR POLYETHYLENE

Chemical Development Corp., Boston, is offering "Anstac-P," a new anti-static agent for polyethylene film, tubing and moldings. Easy to apply, Anstac-P is a colorless, odorless, nonflammable liquid that reduces blocking and wildness and simplifies cutting, filling, wrapping and unwinding operations, according to the company. It can be used by extruders and molders as a quench in place of water. Drying is speeded if the polyethylene is immersed and removed while warm.

TREATED GERMICIDAL PAPER

A new process said to make paper germicidal so that disease germs coming into contact with the treated paper are destroyed is announced by the Kempro Corp., New York. The

MODERN PACKAGING

NEW

"low-down"

ON CARTONING COSTS!

Scores of users of Jones Carton Loading Machines have given us the cost of hand loading their products as compared with automatic cartoning. The various loads or products are described, enabling you to compare your cartoning costs on similar operations.

This group of post-war Jones Cartoners is saving an average of \$115.33 per day per machine!

If you'd like to check your cartoning cost "batting average" against others in your league, ask for your copy of this report, which will be sent promptly.



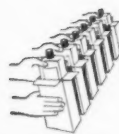
9 GROUP STUDIES are classified by types of operations, permitting direct comparisons with similar operations.



NO CHARGE is made for this report. We are glad to send a copy to anyone who is interested.

97
COST
COMPARISONS

LOADING CARTONS
BY HAND



and

ON JONES AUTOMATIC
CARTONING MACHINES



REPORT No. CF-1 • R. A. JONES & COMPANY, INC.

AUTHENTIC figures from actual users, without revealing the identity of any of the reporting concerns.

DIVERSIFIED reports include almost every conceivable type of load and operating cycle for close comparisons.

R. A. JONES & COMPANY, INC.
Cartoning Machines - Soap Presses

P. O. BOX 485 DESK M10 CINCINNATI, OHIO

A "SWEETHEART" FOR SALES

CONTAINER BY

Syroco Wood

CANDY BY
BARRACINI



SIZE: 10 1/2" x 10 1/2" x 2 1/4"

This container is a powerful sales stimulant because it presents the candy luxuriously and is also desirable for use in the home for decorative and utilitarian purposes.

Molded of wood plastic, superbly sculptured in a rose design, the container is beautifully finished in mahogany wood grain, delicately highlighted with gold.

SYROCOWOOD containers and advertising displays can be molded in any shape and finished in all wood textures, full color and metallic effects. We invite your inquiry.

Advertising Display and Container Division
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NEW YORK • CHICAGO • LOS ANGELES



To you, this plant means complete freedom from unit-packaging detail—it means prompt, dependable, efficient handling—a package for your product which has the incomparable advantages of "Sanitape-Sealite." It is the Contract Packaging Division of Ivers-Lee and its 100,000 square feet of light, air-conditioned space, complete with every modern labor-saving device are at your service right now. We assume full responsibility for your packaging problem. Write today for complete information.

IVERS-LEE COMPANY, NEWARK, N. J.

* Sanitape-Sealite is a unique method for packaging pills, tablets, capsules, creams and powders, by which each unit or unit-dose is sealed in its own air-tight compartment—assuring complete protection and maintained efficacy. Packages, machines and methods fully covered by U. S. and Foreign Patents and Patents Pending

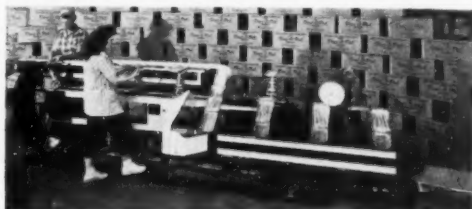
Equipment and Materials

(Continued)

process, called "Kemunizing," consists of a special method of passing the paper through a chemical fog which impregnates the paper. Upon contact with moisture in any form, the "Kemunizing" agents become activated. One of the first applications of the treated paper is as sanitary wrappers for drinking straws.

BAGGING MACHINE FOR PRODUCE

A bagging machine, the Dent-O-Matic, designed for carrots, celery, grapes, cherries, etc., is being marketed by The Denton Corp., Oakland, Calif. It is designed for use with the patented Dent-O-Pak bag, a Pliofilm bag with a rigid paperboard



collar that can be used as a carrying handle (see MODERN PACKAGING, April, 1949, p. 165).

Each of the carrying buckets on the machine has its own scale. Only two girls are needed to pack up to 28 bags per minute, one girl loading the product on the bucket and checking weight and the other girl slipping the bag over the carrying bucket holding the product. As this bucket registers with the carrier delivering the bag to the stitcher, it trips and the bag is positioned for automatic stitching.

METAL-BASE ACETATE CONTAINERS

Clinwill Plastics, Inc., Buffalo, N. Y., is now producing round, transparent, metal bottom containers fabricated of cellulose acetate with drawn acetate covers fully beaded. The boxes

are available in 4, 5, 6, 7, 7 3/4 and 8 1/2 in. diameter and from 1 to 10 in. high or any in-between height. Both the box cover and the side may be printed gold or printed in one or more colors. The company reports it is able to furnish as few as 500 boxes of any particular diameter and height.



HIGH-SPEED PHOTO-ELECTRIC CONTROL

Photoswitch, Inc., Cambridge, Mass., has available a new high-speed sensitive photo-electric control, Type 23LF3, that can be used to maintain an accurate register of paper and cellophane being processed for bags and wrappers. The control responds to an impulse of less than 0.001 second; size of light spot is 1/8 by 1/4 in. and ambient temperature ranges from 32 to 100 deg. F. The control has vacuum tubes throughout the amplifying systems and does not require gas-filled thyratron-type tubes.



BEE-LINE



TANDEM

WORLD'S RECORD

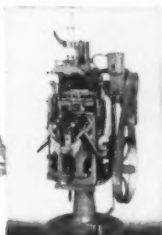
*for dependable, low-cost labeling
helps you select the best
Labeler in the WORLD
for your purpose*



TURRET



ROTARY



MODEL S

— for production LABELING

Whatever your requirements, there's one Labeler that's best in the WORLD for you. For example:

WORLD *Bee-Line* for all sizes and shapes of front and back, body, shoulder and neck labels and of containers; production up to 2 a second or even faster. Model 40 *Bee-Line* is ideal for gallon bottles or jugs.

WORLD *Tandem* for mass production labeling of round bottles and jars; output from 75 to over 350 per minute; units for increased production are easily and inexpensively added.

WORLD *Turret* for fine quality low-cost labeling of a variety of container shapes and sizes. Applies front body labels, neck labels or all around neck wraps simultaneously when desired.

WORLD *Rotary* for dependable low-cost labeling of round containers, 4 oz. and up; production to 85 or more per minute.

WORLD *Model S* Semi-Automatic applies all kinds of labels to all sizes of containers; provides flexible, dependable and easy operation by unskilled workers.

— for precision LABELING

All WORLD Labelers are engineered to handle your containers gently and without "traffic jams" . . . to deliver neat, smooth, well dressed containers with body labels, front and back labels, neck or shoulder labels and/or foil.

— for profitable LABELING

The best Labeler in the WORLD for you is a long-term gilt-edge investment. Operating and maintenance cost is exceedingly low. Send a sample of your container(s) and label(s) for recommendations and cost estimates.

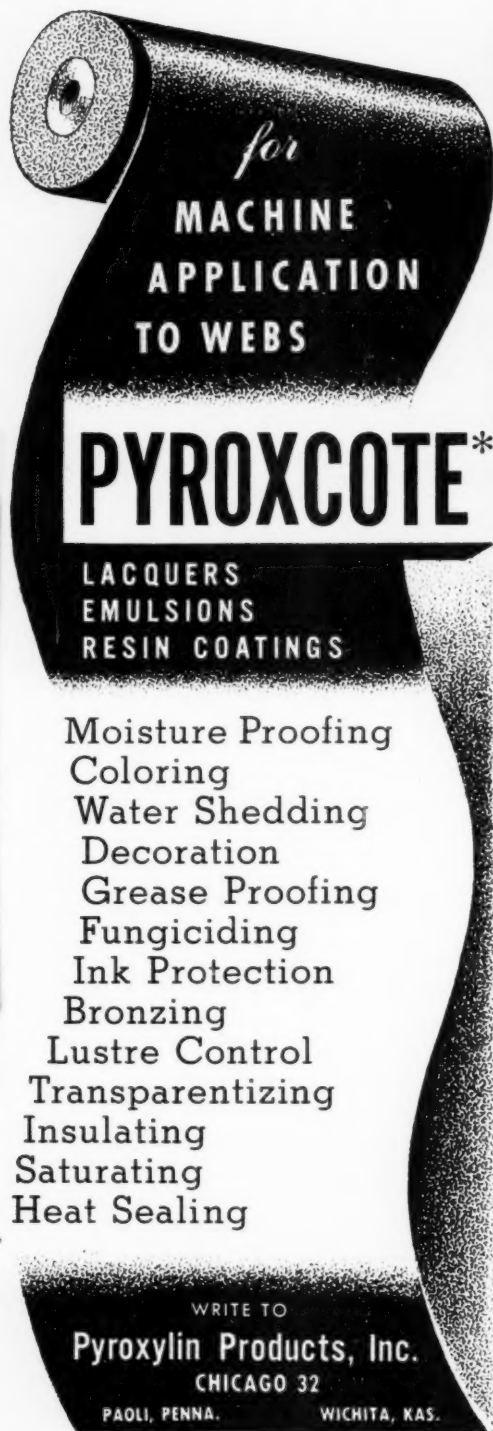
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IN THE WORLD"**

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Builders of World Automatic and Semi-Automatic Labelers for Every Purpose

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Louisville Salt Lake City El Paso Seattle Portland Phoenix London Montreal
Toronto Winnipeg Newfoundland Vancouver Mexico City Sydney Australia
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 APPLICATION
 TO WEBS**

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Moisture Proofing
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PAOLI, PENNA. WICHITA, KAS.

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look at your plant



*it's as individual
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ALVEYORS*

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No two plants are identical. Their conveyor needs are as different as two fingerprints. Alvey engineers have the experience, the skill to analyze your needs and to design and install a conveying system that will be an integral part of production. It will be as individually yours as your fingerprint. This Fingerprint Engineering is an Alvey plus... another reason why more and more of the greatest names in your industry are relying on Alvey.

Can an
**ALVEY
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 profit you?

Inquire!

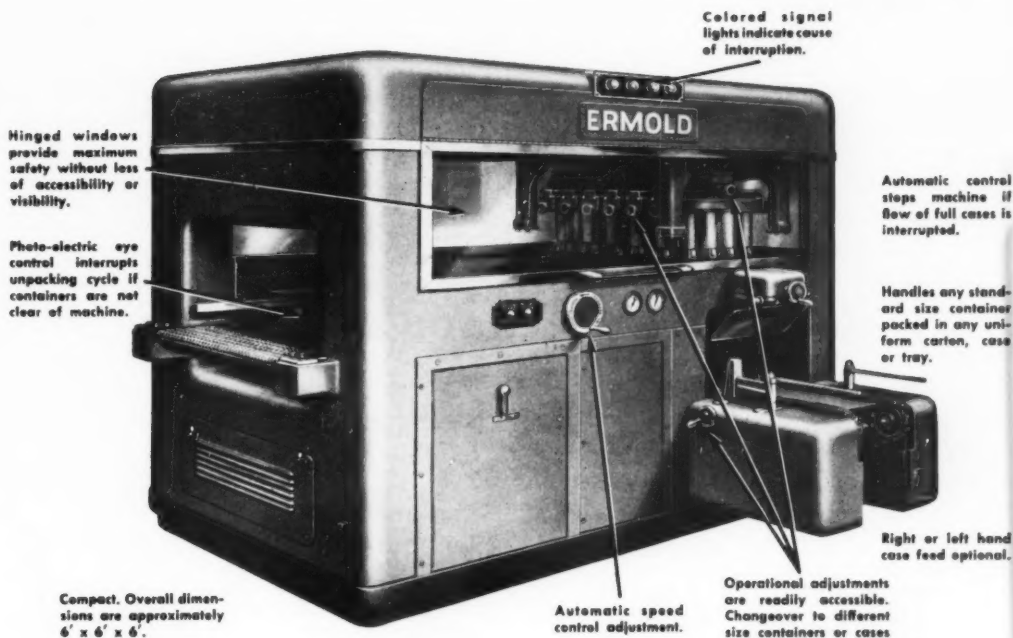
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HERE IT IS!

ERMOLD **AUTOMATIC** UNPACKER



FULLY AUTOMATIC! That's the keynote of the new Ermold Unpacker. It automatically removes standard containers from cartons, deep or shallow cases or trays. It takes filled or partially filled cases and discharges the containers on a continuous conveyor while discharging the empty cases on either right or left side.

Fully automatic safety devices not only protect employees, but also prevent damage to the machine as well as to containers and cases. The Unpacker also automatically rejects odd size or badly damaged cases, under or overlength or broken bottles.

Vitaly important, too, the output of the Ermold Automatic Unpacker is

more than ample to feed the largest washers operating at full capacity.

For details on the new Ermold *Automatic* Unpacker as well as for a consultation with an Ermold representative on how this machine can be integrated into your production line, fill out the coupon and mail it today.

EDWARD **ERMOLD** COMPANY

652 HUDSON STREET, NEW YORK 14, N.Y.

FOUNDED 1880 • INCORPORATED 1911

OFFICES: BOSTON • CHICAGO • CLEVELAND • LOS ANGELES • MONTREAL
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Famed for Labeling Leadership for 69 years.

EDWARD ERMOLD COMPANY
652 Hudson Street, New York 14, New York.

Please have a representative call to discuss how the new Ermold Automatic Unpacker can simplify our unpacking procedures.

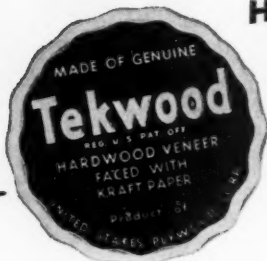
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How many of these **TEKWOOD** advantages do you need?

CHECK INTO IT. Tekwood's extraordinary versatility may enable you to raise quality while you lower costs.

- ✓ Won't buckle, split or splinter
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- ✓ Die-cuts cleanly and easily
- ✓ Unusually high strength/weight ratio
- ✓ Extraordinary durability
- ✓ Lightweight

- ✓ Routes or folds quickly and easily
- ✓ Readily takes silk screen printing or lithography
- ✓ Self hinging when scored or cut partly through
- ✓ Remarkably low-priced

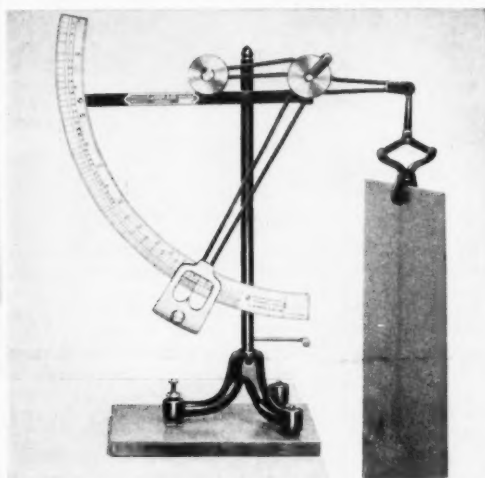
Tekwood is made with a core of sturdy hardwood. To each side is resin-bonded a tough sheet of Cylinder Kraft paper. The grain of the Kraft goes at right angles to the grain of the wood. Result? A tough, strong, ruggedly rigid material that's remarkably versatile. Write us today for complete data on Tekwood. Chances are you can use it.

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CADY SCALE WEIGHS BOXBOARDS

Insert one sheet of known size and take direct reading for number of sheets in 50 lb. bundle. Wood base attached, permits setting scale near edge of table or cabinet for weighing large size sheets of boxboard.

Write for complete Cady Catalog and prices of Boxboard, Paper, and Tissue Basis Weight Scales; Bursting Strength Testers for Boards, Papers, Fabrics, Dead-Weight and Standard Micrometers, stock or specials.

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"Love at First Sight" GROOM YOUR GOODS with Ohio FABRIC BAGS



Yes, package your goods in exquisite Ohio Fabric Bags...they have the merchandising magic of Two-Way Sales—

1. Tailored, to distinctively encase your product giving it **BUY APPEAL**!
2. Protects your product's beauty and factory fresh appearance assuring its **SALES APPEAL**!

Styled in colorful flannel or suedene, enhanced with drawstring or snap closures you will discover they are surprisingly economical. And for a mere fraction of a penny they can be decorated with your trademark.

Let us design a fitting fabric bag for your product. Available in any size or shape. Simply send sample and we'll return it in a handsome Ohio Fabric Bag. No obligation.

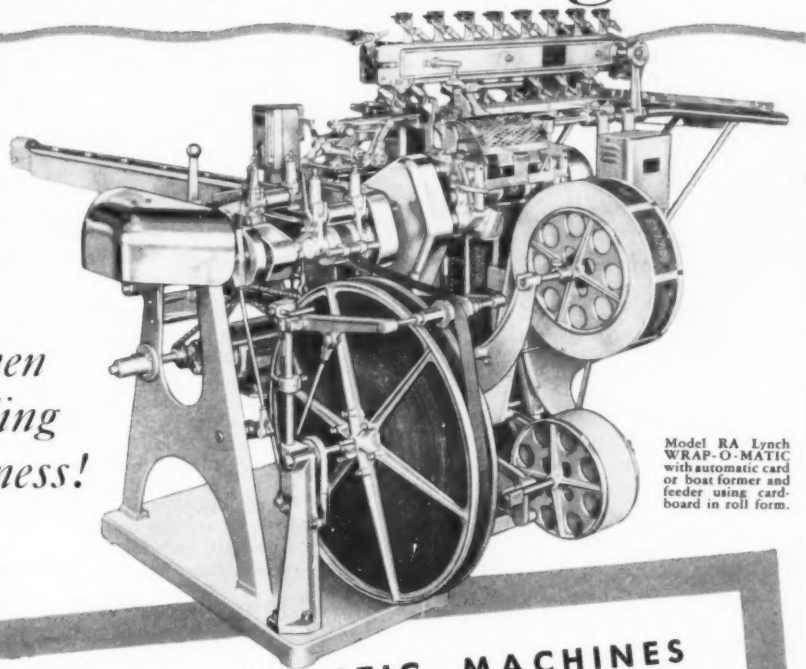
Ohio

MANUFACTURING CO.

1402 Edward L. Grant Highway, New York 52, N. Y.

Important message

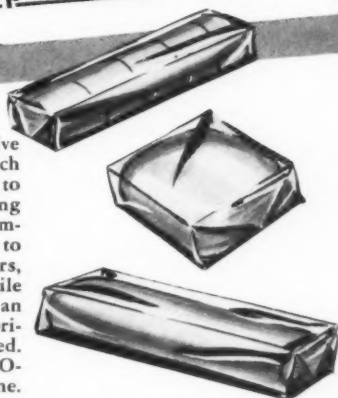
... to men
building
a business!



Model RA Lynch
WRAP-O-MATIC
with automatic card
or boat former and
feeder using card-
board in roll form.

LYNCH WRAP-O-MATIC MACHINES
Put Your Costs on a Competitive Basis!

Don't wait until you're doing a volume business to give serious thought to fast, automatic packaging. Let Lynch WRAP-O-MATICS give you a big assist in helping to build your business **RIGHT NOW** by keeping packaging costs down to a minimum and keeping your prices competitive. Lynch WRAP-O-MATICS are designed to handle not only the conventionally shaped candy bars, cookies, small cakes and crackers but irregular and fragile shaped forms as well. Model RA can be equipped with an automatic card or boat former and feeder to handle primarily fragile or irregular shapes like those illustrated. Write today for more details on how Lynch WRAP-O-MATICS can help build your business to bigger volume.



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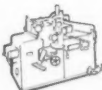


PAR
REFRIGERATION
COMPRESSORS



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TOLEDO, OHIO



MORPAC
PAPER PACKAGING
MACHINES



MORPAC
BUTTER & OLEO
PACKAGING
MACHINES



GLASS FORMING
MACHINES



Plants and People

Two promotions within the sales staff of **The Dobeckmun Co.**, Cleveland, have been announced: **James M. Deegan**



J. M. Deegan

has been named field sales manager and **Willis W. Clark** has been appointed sales manager of the Cleveland district. Mr. Deegan, in his new position, will direct home office liaison with salesmen in the field. Prior to his promotion, Mr. Clark was sales representative in Cleveland.

F. C. Baselt has been appointed assistant director of research for **American Can Co.**, New York. For a number of years Mr. Baselt has been active in research and development work in connection with the company's flat-top paper milk container and the beer can. In his new position he will have direct charge of these activities. He will also work with agricultural and public health agencies in technical matters involving milk containers and the brewing industry. Mr. Baselt will retain his New York headquarters, but will correlate his work with that of **Dr. B. S. Clark** and **Dr. R. W. Pilcher**, director and associate director of research, respectively, for the company's general laboratories in Maywood, Ill.

Announcement has been made of the completion of arrangements through which the foil carton manufacturing activities of **Reynolds Metals Co.**, will be carried on by **Robert Gair Co.**, to produce an expanded line of packaging to be known as "Gair Reynolds Foil" folding cartons. Under the arrangement, Reynolds is turning over to Gair its techniques for laminating and printing foil and leases to Gair some of the necessary machinery for laminating foil and paperboard and will supply Gair with its requirements of foil. The machinery will be installed and operations conducted by Gair in its folding carton plant at Piermont, N. Y. **Richard T. Clark**, formerly manager of the carton and container division of Reynolds, has joined the Gair company to assist in carrying out this manufacturing and sales program. Reynolds will extend the sales territory of the cartons westward to the Pacific Coast, while Gair will handle sales east of the Mississippi.

A new plant recently completed by **Shell Oil Co.**, in Houston, Tex., will produce 75 million pounds a year of paraffin and microcrystalline waxes chemically treated to insure purity and stability of color, according to **J. C. Jordan**, vice president in charge of marketing. All grades of waxes used in the wax paper, packaging, cosmetic and other industries will be made at the new plant.

Bemiss-Jason Co., San Francisco, announces a change in policy in regard to its manufacturing activities. The firm has discontinued the actual manufacture of all items made from board and turned the manufacture of these items over to **Container Corp. of America**, California Container Division. Bemiss-Jason Co. will continue with

the development of the corrugated specialties it now manufactures and, according to **W. E. Jason**, vice president, expects to announce radical changes in style and design of these items in the very near future. The company will continue to devote a major part of its time to the development of Kliklok box forming machines and box blanks.

P. A. Vogel has been appointed director of sales for the Plaxpak bottle, the squeezable polyethylene container made by **Plax Corp.**, division of **Hartford-Empire Co.**, Hartford, Conn. Mr. Vogel was formerly market analyst for Hartford-Empire.

Union Bag & Paper Corp., New York, has opened a new multiwall bag sales office in New Orleans, La. **Herman R. Ninesling**, formerly of the New York multiwall sales office, will represent the company in Louisiana and Arkansas, with headquarters at New Orleans.

Arthur Cherry is now sales representative for the Memphis area of Union Bag & Paper Corp. He will supervise sales of all Union products except multiwall bags.

Empire Box Corp., Garfield, N. J., has appointed **E. J. McGuire** as sales manager of the Specialties Division. Among the lines Mr. McGuire will head are ice cream cartons, Shur-Pak egg cartons and beverage cartons.

Stuyvesant Engineering Co., Lyndhurst, N. J., manufacturers of the Fillmaster package filling machine, announce the appointment of the **R. P. Anderson Co.**, Dallas, Tex., as their representatives in Texas, Oklahoma, New Mexico, Arkansas and Louisiana. Mr. Anderson was formerly executive vice president of King & Anderson.

Innovations in manufacturing processes and end products are the result of a recently completed, long-range modernization program in the asphalt papers division of **Thilmany Pulp & Paper Co.**, Kaukauna, Wis. Started several years ago, the program was directed toward the development and production of unusual types of specialty asphalt paper products rather than expanded production of standard grades. Thilmany's production facilities now include two 60-in. asphalt coaters, a 72-in. machine devoted primarily to creping and special treatments and three laminators in 60-, 84- and 120-in. widths—the latter, it is believed, being one of the largest precision laminators in operation in the industry.

Henry H. Allen, vice president and a director of **Bemis Bro. Bag Co.**, St. Louis, Mo., recently celebrated his 60th year with the company. Mr. Allen is in charge of Bemis' Eastern operations, in New York.

American Machine & Foundry Co., New York, has established a West Coast sales and service headquarters for AMF bakery machinery and ovens, under the supervision of **Charles L. Clock** at 1258 Mission St., San Francisco.

Container Laboratories, Inc., has been certified as an official testing laboratory in connection with the National

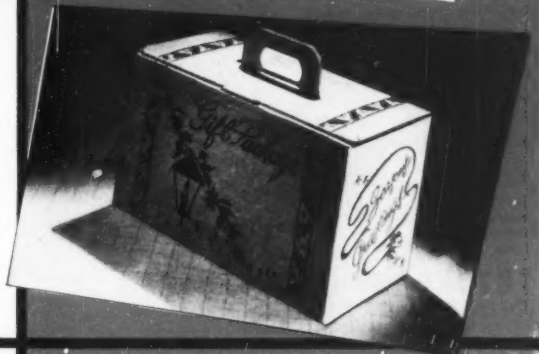
SHOCK-PROOF SHIPPING BOX

You can't take chances in shipping delicate, precision equipment. If such equipment is damaged in transit, your customer will probably look elsewhere the next time he places an order. Whatever your product, the H & D Package Laboratory can work out a safe, dependable, economical packaging method that will protect your goodwill . . . and your profits!



Use the LUGGAGE BOX for Extra Sales Appeal

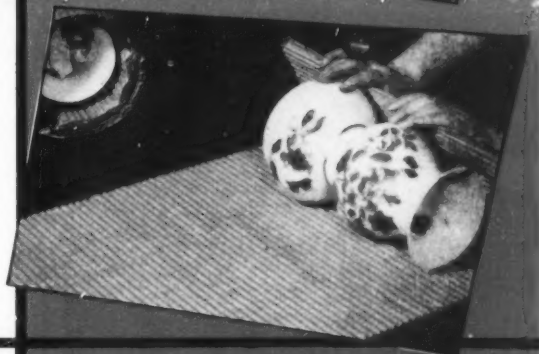
Promotion of seasonal merchandise is but one of many successful applications of the H & D luggage box. Use it to add extra value to your product, to win extra sales appeal. It makes your product easier to carry, easier to use. Your dealers will endorse it—because it displays well, simplifies the selling job, reduces selling costs, eliminates repacking and wrapping.



PLYPAK*—A Packaging Material of a Thousand Uses

PLYPAK* is a corrugated packing material that combines several thicknesses of corrugated paper to form a protective "blanket" which is ideal for packaging fragile merchandise. Clean and easy to handle, PLYPAK* is simply "wrapped" around a product, gives it a soft, close-fitting cushion that defies shock. Ask for sample.

*REG. U. S. PAT. OFF.



REG. U. S. PAT. OFF.
H & D
BOXES

FOR MORE INFORMATION, WRITE
HINDE & DAUCH
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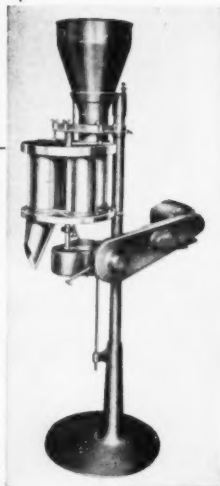
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FILLMASTER VIBRATORY FILLER (HEAVY DUTY)

Nationally known firms have chosen this unit because of the trouble-free vibratory feature which improves their weight accuracy and filling speed on dry and semi-dry products, such as cereals, candies, pop corn, nut meats, bread crumbs, seeds, spices, tea, coffee, (all grinds), powders, cake mixes, fresh and frozen peas, etc.



Gram fraction to 10 pounds
to 120 fills per minute
No bridging
No breakage of delicate products
Inexpensive
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Also available:
Product Settling Table
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tachment
Automatic Conveyor Attachment

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DISPLAY DIVISION • MONROE, MICHIGAN

RIVER RAISIN
DIMENSIONAL DISPLAYS

Plants and People (Continued)

Safe Transit Program, sponsored by the **Porcelain Enamel Institute**. Test equipment is now in operation at the firm's Chicago branch and will be installed in its New York and San Francisco laboratories if demand warrants.

William R. Huguenin has been appointed manager of **Stokes & Smith Co.**, a subsidiary of **Food Machinery & Chemical Corp.**, Philadelphia.



W. R. Huguenin

Mr. Huguenin, formerly in charge of Food Machinery's Central Export Dept. at San Jose, Calif., succeeds **Gerald F. Twist**, former manager of Stokes & Smith, who has been promoted to manager of Food Machinery's Peerless Pump Division at Los Angeles. In his new position, Mr. Huguenin will be in charge of all FMC activities in the dry products packaging equipment and set-up paper box making machinery fields.

John J. Harker of Baltimore, Md., formerly president of the **Pioneer Folding Box Co.**, Chicopee, Mass., has resigned and has been succeeded by **Gordon D. Shinnors** of West Springfield, Mass., who was formerly treasurer of the company. **S. R. Bradley, Jr.**, of Longmeadow, Mass., has joined the company as vice president and treasurer.

J. Stanley Clark has been appointed manager of **International Printing Ink's** Buffalo, N. Y., office. Mr. Clark, who has been with IPI since 1935, succeeds **Tom Reese, Jr.**, who recently resigned to enter another field.

A new, modern building for IPI's Atlanta branch office and service station has recently been completed at 730 Bluff St., S. W., Atlanta, Ga.

Permanente Metals, producer of Kaiser aluminum foil, Permanente, Calif., has announced the purchase from the government for \$36,000,000 of three major aluminum plants, formerly leased. These are the Trentwood aluminum rolling mill and Mead reduction plant, both at Spokane, Wash., and the alumina plant at Baton Rouge, La. These acquisitions complete ownership of all plants being operated by Permanente Metals.

American Can Co., New York, in one of the largest office leasing transactions ever closed in that city, has taken more than six entire floors, containing approximately 180,000 sq. ft. of space, in the new 36-story office building under construction at 100 Park Ave. between 40th and 41st Sts., on the site of the old Murray Hill Hotel. American Can has occupied its present quarters at 230 Park Ave. since 1929. Occupancy of the new quarters awaits completion of the new building late in December.

Oneida Paper Products, Inc., Clifton, N. J., flexible packaging manufacturer, has appointed **Sidney A. Stein** as manager of the company's Fort Worth, Tex., factory and sales office. The appointment of Mr. Stein, who has been with the company for over 12 years, precedes a new policy of increased production and improved service from the Southwestern area factory.

Warren Miller has organized the **Miller Sales Co.**, with headquarters at 524 Burns Ave., Cincinnati, to represent



YOUR PRODUCT

IS THE CENTER OF ATTRACTION
in a

Clearsite*
PLASTIC CONTAINER

When all eyes are focused on your product, they mean business. In CLEARSITE your wares are the best-dressed members of any product display. In every field, in every industry, successful products go to market in colorful or clear CLEARSITE PLASTIC containers. They forge ahead, protected, value enhanced, favored by customers. A parade of extras that can make an extraordinary difference in sales and profits. You'll see, when you see your products in CLEARSITE Plastic Containers.

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CORPORATION

34 Avenue L, Newark 5, New Jersey

America's #1 Source for Plastic Containers

Established 1919

Representatives in Principal Cities

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Write for Samples; GIVE PRODUCT SIZES; YOU'LL GET A WEALTH OF SELLING MATERIAL

CLEARSITE may be had flexible or rigid.



CLEARSITE is feather-light, 1/5 the weight of glass.



CLEARSITE is seamless.



CLEARSITE is shatter-proof.



CLEARSITE can be permanently imprinted.



CLEARSITE available in all colors, clear or opaque.



APPLIED COLOR DECORATION FOR PEAK PACKAGE APPEAL

Few methods of decoration on glass, metal and plastic (including polyethylene) can even approach the effectiveness of applied color decoration by GRAPHIC DECORATORS.

Designs and lettering with exact registration are colorful, sharp, clearly visible . . . will outlast the contents of the container. Important, too, we have facilities to receive and store your ware before decoration.

GRAPHIC DECORATORS' ability to solve unusual package decorating problems is attested to by our many satisfied clients. May we help you with design recommendations. *Write today.*

GRAPHIC DECORATORS, INC.

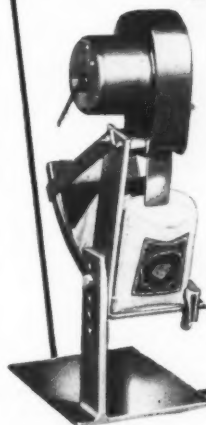
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**AT BAGGING PRODUCTS
AT BAGGING PROFITS**



**LOW IN COST
EASY TO USE**

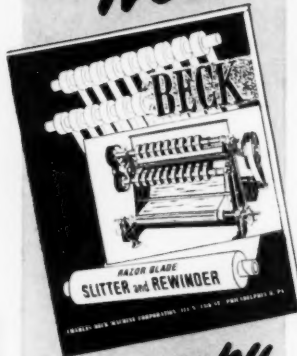
Designed to handle bagged products with a minimum of effort at a maximum speed. Simple adjustments for height . . . tilting forward or backward enables operator to set machine at easiest position. Stainless steel trough with capacity of 200 bags. Adjustable to bag sizes. Blower keeps bag clean and free from foreign matter.



Send today for
Bulletin No. 10-29

ANDERSON BROS. MFG. CO., ROCKFORD, ILLINOIS

**Send
NOW!**



*Your copy
is waiting*

The NEW BECK Razor Blade Slitter and Rewinder

LET'S SHOW YOU in
words and pictures
how this NEW in-
expensive machine
saves time and
money. Write today.

CHARLES BECK MACHINE CORPORATION
406 N. 13th Street Philadelphia 8, Pa.



Controlled

PACKAGE FILL
MILLIGRAMS
GRAMS OUNCES

With this Model A PAK KING filler you meter the above volumes accurately and at high speed. Spices, coffees, teas, grated cheese, cocoas, drugs, powders, insecticides and chemicals. In semi or full automatic dust free designs up to 120 per minute or more. Loose, settling or ram pressure fill. Tandem fillers for high speed or extra settling features as required for powdered sugar cartons.

Ask for catalog No. 48 or Bulletin No. 481 and 482.



WEIGH RIGHT AUTOMATIC SCALE COMPANY
JOLIET - ILLINOIS - U. S. A.

Plants and People (Continued)

the **Arthur Colton Co.** of Detroit, builders of pharmaceutical and packaging machines. The new company's field organization will include **Charles Wall** and **Robert Schrotel** and will cover Ohio, Southern Indiana, Southern Illinois, Missouri, Kansas, Kentucky, Western Pennsylvania and West Virginia.



D. F. Houdeshell Appointment of **D. F. Houdeshell** as assistant to **Jack Manion**, head of the Meat Division, **Milprint, Inc.**, Milwaukee, Wis., has been announced. Mr. Houdeshell, formerly with **W. F. Thiele Co.**, Milwaukee meat packer, will assist packers in processing, manufacturing, packaging and merchandising.

R. P. Anderson, Dallas, Tex., formerly with King & Anderson, has been appointed exclusive representative for the **U. S. Bottlers' Machinery Co.** for the State of Texas with the exception of El Paso, which is covered by **P. D. Bowley & Associates**.

Samuel G. Allen has resigned as chairman of the board of directors of **Lima-Hamilton Corp.**, New York, and has been succeeded by **John E. Dixon**, formerly president of the company. **George A. Rentschler** will continue as chairman of the executive committee and chief executive officer, while **Daniel S. Ellis** has been named president to succeed Mr. Dixon. **W. A. Rentschler** is now executive vice president and **Henry F. Barnhart** of Lima, Ohio, vice president in charge of shovel and crane sales, was made a director.

Edward J. Sullivan has been appointed Eastern sales manager for **Gould Paper Co.**, Lyon Falls, N. Y., a subsidiary of **Continental Can Co.** Mr. Sullivan, who recently resigned from **Oxford Paper Co.**, will have headquarters in New York.

The annual sales meeting of the **Cameron Machine Co.**, Brooklyn, was highlighted by the formal opening of Cameron's Plant No. 2. Located in the Williamsburg section of Brooklyn, the new plant will be devoted to the production of rolls for slitting and winding machines used by the paper and textile industries.

Allan McNab and **John Wisner** have organized a new industrial design firm, **McNab & Wisner**, at 485 Madison Ave., New York. Mr. McNab, president of the firm, was formerly with **Norman Bel Geddes** and **Life** magazine. Mr. Wisner, secretary and treasurer, was with **Dorothy Draper, Inc.**

Joseph P. Giroux, 2970 W. Grand Blvd., Detroit, is now Michigan representative for **Victor Industries Corp.**, Brooklyn.

Anchor Hocking Glass Corp. announces the following series of personnel promotions in the company's Container Division plants: **J. G. Callinan**, plant manager of the Tableware Division Plant Number 2 at Lancaster, to plant manager of Maywood Glass Co., an Anchor Hocking subsidiary; **James M. Fordham**, plant manager of the installation at Connellsville, Pa., to plant manager of the Salem, N. J., container plant. At the Salem plant, **H. S. McIlvaine**



Tough...for the carriage trade

Tough. Long-lasting. Crystal-clear. That's Kodapak Sheet; preferred for containers that show and sell... keep merchandise fresh and clean, before and after the sale. And because Kodapak Sheet runs uniform, order after order, standardized fabrication methods are easily developed and maintained.

Kodapak Sheet comes in two basic forms: Kodapak I Sheet, cellulose acetate, gauges up to 0.060"; Kodapak II Sheet, cellulose acetate butyrate, gauges up to 0.002". Made on the same type of machines, to the same high standards, as Kodak photographic film base.

To learn more about Kodapak Sheet, its fabrication and end uses, you are invited to write, consult your nearest representative or distributor, or plan a visit to the Kodapak Demonstration Laboratory in Rochester.

Cellulose Products Division

Eastman Kodak Company, Rochester 4, N. Y.

Sales offices in New York, Chicago. District sales representatives in Cleveland, Philadelphia, Providence. Pacific Coast distributors: Wilson & Geo. Meyer & Co., San Francisco, Los Angeles, Portland, Seattle. Canadian distributor: Paper Sales, Limited, Toronto, Montreal.

FOR THE DISPLAY YOU WANT... THE PROTECTION YOU NEED

Kodapak Sheet

"Kodapak" is a trade-mark

Kodak
TRADE-MARK

CASE HISTORY #2

The Co., National Distributors of imported food products, desired consumer packaging for one of their bulk imports.



Plant conditions had to meet most stringent standards for cleanliness and supervision.

The product required humidity control for proper handling.

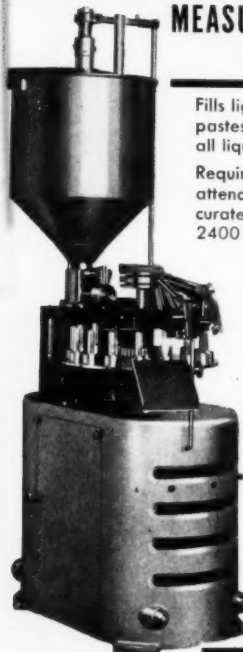
Edlaw was contacted — a trial run was arranged — and a permanent line has been in production for the past year.

Customer has renewed contract for the year 1949.

Memo to
Contact
The Edlaw Co.

Contract Packaging
AT PRE-DETERMINED COST
88-61 76th AVENUE
GLENDAL, L. I., N. Y.

COLLAPSIBLE TUBE FILLING MEASURING and CLOSING MACHINES



Fills light and heavy creams and pastes without air pockets — also all liquids.

Requiring only a single unskilled attendant, the RV 2 Vertical accurately fills and seals 1800 to 2400 tubes hourly. It handles tubes up to 1 1/2" diameter, with capacities from 1/4 to 4 ounces. A special adjustment allows filling larger size tubes.

All parts contacting the material being filled are stainless steel. Hopper capacity is twelve gallons.

Other features: built in agitator; 3-fold clipless closure; no tube — no fill; easy cleaning; automatic ejection of filled tubes.

Write for details.

ERNEST STARK

11 West 20th St., New York, N. Y.

Plants and People

(Continued)

continues as assistant plant manager, **Ralph R. Newkirk** advances to general superintendent and **Louis Green** succeeds Mr. Newkirk as the forming department superintendent. **James W. Sharpe** becomes plant manager of the Connellsville plant and **Harris Snell**, formerly with the corporation's engineering department, becomes assistant plant manager.

United States Printing & Lithograph Co. formally opened its new lithographing plant at Mineola, Long Island, N. Y., late last month with an open house for two days. The



plant, which will replace the company's plant in Brooklyn, contains complete facilities for the manufacture of folding cartons as well as cutting and finishing machinery for a wide variety of lithographic paper products. The accompanying illustration is an exterior view of the new building.

George L. Wheeler, formerly assistant purchasing agent for Wyeth Co., has been appointed a sales representative for the **White Metal Mfg. Co.**, manufacturers of collapsible tubes and metal can spouts. Mr. Wheeler is making his headquarters in Philadelphia and will cover Pennsylvania, Delaware, Maryland, Virginia, South and North Carolina, Georgia and Washington, D. C.

Jack Greenberg, president of **Lutz & Sheinkman**, New York, has acquired sole ownership of the lithographic company through the recent acquisition of outstanding stock. Mr. Greenberg became secretary of the company in 1936 and president in 1944.

Robert J. Rodgers has been named sales manager of the Packaging Division of **The E. F. Schmidt Co.**, Milwaukee. Formerly with the **Wilmanns Lithographing Co.**, acquired by the Schmidt company in 1948, Mr. Rodgers will head the new division specializing in labels, box wraps and other packaging materials.

John M. Callahan, vice president of the **U. S. Printing & Lithograph Co.**, Cincinnati, Ohio, died last month at the age of 59. He was a former president of the International Assn. of Printing House Craftsmen.

Harry J. Byrne, 50, executive vice president of the **Michigan Carton Co.**, Battle Creek, died Aug. 28 after a four-week illness. A leader in his industry, Mr. Byrne served as chief of the folding box division of OPA and for several years had been a director of the Folding Paper Box Assn. of America. With **Michigan Carton Co.** 20 years, he had been elected a vice president last January.

George B. First, assistant chief engineer for **Stokes & Smith Co.**, a subsidiary of **Food Machinery & Chemical Corp.**, Philadelphia, died suddenly while on vacation in South Dakota. Mr. First had been with **Stokes & Smith** for 34 years.

Distinctive appearance at standard mold cost



The Armstrong K-Design is a stock molded cap that has the distinctive qualities of a private design. It is extremely adaptable for use on differently shaped containers. The K-Design cap is finished to a high luster—won't fade—is noncorrosive. Made in all popular sizes to fit standard containers. Gives your product a quality look at low cost. For samples, prices, and further information, write Armstrong Cork Company, Glass and Closure Division, 5910 Prince Street, Lancaster, Pennsylvania.



WEST COAST REPRESENTATIVE: I. F. SCHNIER CO., INC.
SAN FRANCISCO 7 AND LOS ANGELES 12

ARMSTRONG'S
Artmold
PLASTIC
CAPS

ANILINE Print PRESSES



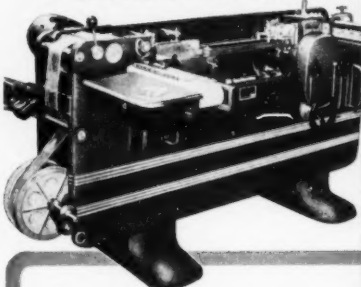
**PERFECT REGISTER
... TREMENDOUS SPEED**

THIS brand new No. A-4 aniline printing press offers perfect register at highest speeds on cellophanes, foils, and other materials your customers require for wrapping their products. Many other models in our complete line of presses are available for the aniline printer. Write us for complete detailed descriptions.

HUDSON-SHARP
MACHINE CO. • GREEN BAY • WIS

Packages

PRODUCTS OF ALL SHAPES



FRAGILE or solid—regular or irregular, this modern continuous feed wrapper delivers up to 150 units per minute, fully glued or heat sealed—and without breakage! Only one operator and one helper required. Also available with hopper feed for cylindrical products such as stick candy, etc. Saves time, money, labor and materials. Write for illustrated brochure and details.

Campbell
WRAPPER

HUDSON-SHARP MACHINE CO. • GREEN BAY • WIS

CASE HISTORY #2

THE — Co., nationally known manufacturers of food products, needed additional package production.



Plant space was at a premium; and all available personnel were required for current production.

THE EDLAW CO. was contacted—A test production line was set up—Samples were run—Cost calculated—and regular production was started WITHIN 48 HOURS. FIVE MILLION 4 oz. packages have been added to this company's production in the last 12 months.

Memo to

Contact
The Edlaw
Co.

Contract
Packaging

AT PRE-DETERMINED
COST

88-61 76th AVENUE
GLENDALE, L. I., N. Y.

NEW—DIFFERENT...

MYSTIK Self Stick LABELS



NO GLUE • NO WATER • NO MUSS

APPLY INSTANTLY • REMOVE EASILY

- ★ FOR PRODUCT IDENTIFICATION
Apply trade names, trade marks, numbers, insignia, specifications directly to product.
- ★ FOR PRODUCT ADVERTISING
Put sales messages directly on product for self-selling at point-of-sale. Apply to finest surface.
- ★ FOR PRODUCT INSTRUCTIONS
Apply diagrams and instructions on product for customer—or job instructions during assembly.

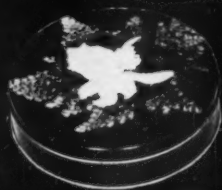
ANY SIZE—ANY COLOR—ANY DIE-CUT SHAPE

Write for Free Samples

MYSTIK ADHESIVE PRODUCTS

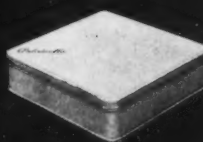
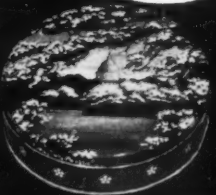
2637 N. Kildare • Chicago 39, Illinois

Mystik Trade Mark Registered • Offices in Principal Cities



**COLORFUL...
PRACTICAL...
HEEKIN
LITHOGRAPHED CANS
FOR ANY PRODUCT**

HEEKIN offers you almost a half-century of experience in package design and package production. Heekin looks to "beginners" as well as old customers to Serve and Develop. No matter the product . . . the quantity . . . if you use metal cans . . . plain or lithographed . . . Heekin would like to serve you.



HEEKIN
Beautifully Lithographed
CANS

THE HEEKIN CAN CO., CINCINNATI 2, OHIO



For Your Information

Robert de S. Couch of General Foods Corp., chairman of the **Packaging Institute's** Steering Committee has announced the following appointments: **Wallace B. Tibbets** of The Dobeckmun Co., chairman of the Institute's Plastics Committee, succeeding **Dr. John H. Teeple** of Celanese Corp. **Dr. Arthur S. Levine** of the University of Massachusetts, chairman of the new Manpower and Education Committee which was formed to study the educational background that seems to be the most favorable to successful men in the packaging function in various types of industries. **Phil R. Babcock** of Lever Bros. Co., chairman of the Paper Committee to succeed **Dr. L. E. Simerl** of Marathon Corp., who relinquished the chairmanship to head a TAPPI committee on the same subject but who remains on the Packaging Institute's committee.

A 15-week course for the packaging profession, "Packing for Safe Shipment," is now in progress at **New York University's** Adult School, Division of General Education. Designed to educate large users of packaging material in the proper and economic ways of safe shipment, the course will be directed by **Henry J. Howlett**, president of Container Laboratories, Inc., and former secretary of the American Management Assn.

"The Long Range Outlook for the Packaging Machinery Industry" will be the subject of the opening session of the 17th annual meeting of the **Packaging Machinery Mfrs. Institute**, to be held at the Edgewater Beach Hotel, Chicago, Oct. 31 to Nov. 2, according to **John P. Corley** of Miller Wrapping & Sealing Machine Co., chairman of the program committee. A symposium on the opportunities for foreign business today and the future outlook for expand-

ing foreign markets, as well as the Institute's regular "Question and Answer Clinic," are scheduled for Nov. 1. The annual reception and dinner will be held on Oct. 31 and a special dinner with entertainment is planned for Nov. 1. The program committee includes, **Charles L. Barr**, F. B. Redington Co.; **H. Lyle Greene**, J. L. Ferguson Co.; **G. Radcliffe Stevens**, Elgin Mfg. Co.; **Louis R. Muskat**, Triangle Package Machinery Co.; **Herbert W. Weber**, H. W. Weber & Co.

A voluntary Simplified Practice Recommendation on Packaging, Marking and Loading Methods for Steel Products for Commercial Overseas Shipments, identified as R237-49, has been approved for promulgation, according to the **National Bureau of Standards**. Copies are available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at 40 cents each. A 25% discount is granted on orders for 100 or more copies.

A new color guide to aniline printing inks for cellophane has been issued by **Bensing Bros. & Deeney**, Philadelphia. The book contains 20 cellophane pages showing different two-color combinations of BBD Excelpak inks, including gold and silver, which are said to afford opaque, uniform coverage on all types of cellophane and the plastic films. Copies of the color guide may be obtained on request to the company, 401 N. Broad St., Philadelphia.

A symposium on Paper and Paperboard Finishes was the subject for the first of a series of dinner meetings held in Cleveland on Oct. 7 and sponsored by a group of TAPPI members and friends who have tentatively chosen the name "Lake Erie Papermakers' and Converters' Assn." Similar meetings will be held at the first Friday of each month during the winter. Anyone interested in paper or paperboard manufacture may obtain further information from **Bill Manor**, Consolidated Paper Co., Monroe, Mich.; **Pete Spring**, Chase Bag Co., Chagrin Falls, Ohio; **Bill Schoenberg**, 1200 W. 9 St., Cleveland, or **Lew Burnett**, Ohio Boxboard Co., Rittman, Ohio.

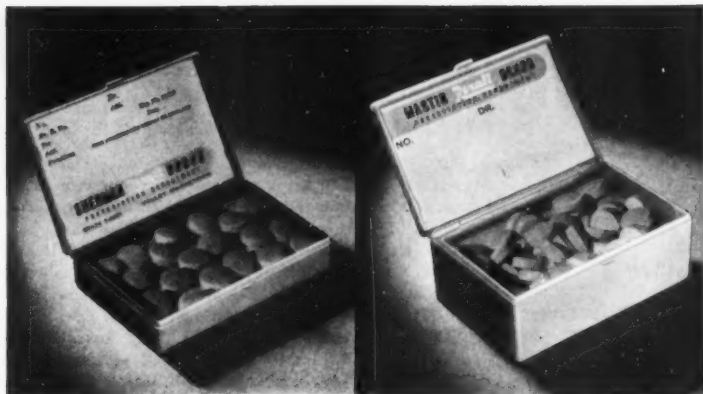
"How To Do Business With The Quartermaster Corps," a pamphlet recently published by the Army, is designed as a guide to business men interested in selling to the **Quartermaster Corps**. It explains what, where and how the QMC buys, how to sell to QMC and other interesting facts. Copies are available on request to the New York Quartermaster Purchasing Office, 111 E. 16 St., New York.

The **Glass Container Mfrs. Institute, Inc.**, has published the GCM 1949 Printing Ink Color Chart, developed by the Institute's Committee on Package Design and Specifications. It is designed to bring about better printing on fibre boxes and better color matches, with less dissatisfaction with drifting shades of color. The chart is available to fibre box and printing ink manufacturers at 65 cents each on request to the Institute, 8 W. 40 St., New York.

An interesting report on the cost of cartoning by hand compared to cartoning by machine, titled "97 Cost Com-

What's doing

- Oct. 10-12—**Assn. of National Advertisers**, annual meeting, Waldorf-Astoria, New York.
- Oct. 10-14—**American Society for Testing Materials**, national meeting, Hotel Fairmount, San Francisco.
- Oct. 12-15—**National Assn. of Food Chains**, annual meeting, Washington, D. C.
- Oct. 15-20—**Baking Industry Exposition**, Municipal Auditorium, Atlantic City.
- Oct. 24-26—**Packaging Institute**, 11th Annual Forum, and **First National Conference on Pre-Packaging**, Commodore Hotel, New York.
- Oct. 28—**National Pickle Packers Assn.**, annual meeting, Sheraton Hotel, Chicago.
- Oct. 31-Nov. 2—**Packaging Machinery Mfrs. Institute**, 17th annual meeting, Edgewater Beach Hotel, Chicago.
- Nov. 14-16—**Grocery Mfrs. of America, Inc.**, 41st annual meeting, Waldorf-Astoria, New York.
- Nov. 28-Dec. 3—**Chemical Industries 22nd Exposition**, Grand Central Palace, New York.

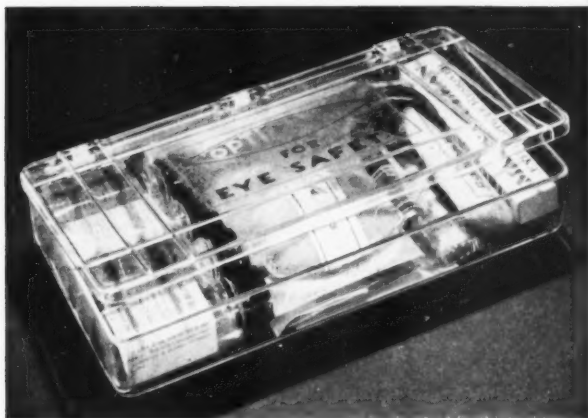


- *Lightweight, durable pillboxes have long re-use value. Molded by The Plus-Tex Corporation, 2525 Military Avenue, Los Angeles 25, California, for the Rexall Drug Company, 8480 Beverly Blvd., Los Angeles, Calif.*
- *Colorfully transparent "Tyrozets" containers. Molded by Plastic Manufacturers Incorporated, Stamford, Conn., for Sharp and Dohne.*
- *Crystal clear and re-usable. Opticlean First Aid Eye Kit, molded by The Vlcek Tool Company, 3001 East 87th St., Cleveland 4, Ohio, for Ohio First Aid & Pharmaceutical Co., 1285 West 6th St., Cleveland 13, Ohio.*

send pharmaceuticals to market

dressed to sell in

STYRON
rigid containers



Now you can offer your customers containers that not only display pharmaceuticals to their best advantage, but protect and speed sales as well.

Styron permits complete freedom of design for your container . . . it's economical . . . can be molded in a wide range of sales-appealing colors.

See how these valuable merchandising advantages, plus the bonus value of RE-USE . . . may apply to your product . . . whether it's pharmaceuticals, cosmetics, jewelry, dairy or industrial products.

Use the coupon to find out more about STYRON RIGID CONTAINERS and how they will promote the sale of your product.

coupon

The Dow Chemical Company
Plastics Division Dept. RC-4
Midland, Michigan

Please send me further information
about Styron Rigid Containers

Name

Company

Street

City State

Plastics Division Dept. RC-4

THE DOW CHEMICAL COMPANY • MIDLAND, MICHIGAN

New York • Boston • Philadelphia • Washington • Cleveland • Detroit • Chicago • St. Louis • Houston • San Francisco • Los Angeles • Seattle • Dow Chemical of Canada, Limited, Toronto, Canada



FABRICATED* LEATHER

- Looks like Leather • Contains Leather
- Wears like Leather
- Costs much less than Leather

Perfect for all PACKAGED PRODUCTS

* Composed of approximately 40% ground leather by volume, plus other ingredients

* Reg. Trade Mark

UNI-MARK. inc.

New York—450 Fourth Ave. Boston—114 South St.

Agents in all principal cities

The NEW IMPROVED MODEL D AND MODEL E EXTENSION DELIVERY



MODEL D: FACE-UP DELIVERY. VIEW WITH TAPE CARRIAGE DOWN



MODEL E: COMBINATION FACE-UP AND FLY DELIVERY. VIEW WITH TAPE CARRIAGE RAISED

\$ECURE INVESTMENT

In hundreds of plants, these modern EXTENSION DELIVERIES are increasing profits.

Write NOW to Dept. MP for new illustrated folder.

THE RATHBUN & BIRD COMPANY, INC.

FOUNDED 1898

278 WEST BROADWAY, DESIGNERS AND MANUFACTURERS, NEW YORK 11, N. Y.

For Your Information (Continued)

parisons," has been published by R. A. Jones & Co., Covington, Ky. Copies are available from the firm.

Austin S. Igleheart, president of General Foods Corp., has been named chairman of the program committee for the 41st annual meeting of the **Grocery Mfrs. of America, Inc.**, to be held at the Waldorf-Astoria Hotel, New York, Nov. 14 to 16. Vice chairman of the committee is **H. Russell Burbank**, president of Rockwood & Co., and members of the committee include **M. Lee Marshall**, Continental Baking Co.; **George Coppers**, National Biscuit Co.; **Victor T. Norton**, American Home Foods, Inc.; **Robert Smallwood**, Thomas J. Lipton, Inc.; **John T. Menzies**, Crosse & Blackwell Co.; **William A. Dolan**, Wilbert Products Co.; **Talbot O. Freeman**, Pepsi Cola Co.; **Frank W. Plowman**, Scott Paper Co.; **John N. Curlett**, McCormick & Co., and **Hector Lazo**, Sunshine Biscuits, Inc.

The 1950 mid-year meeting of the Grocery Mfrs. of America will be held at The Greenbrier, White Sulphur Springs, W. Va., June 29 to July 1, according to **Paul S. Willis**, association president.

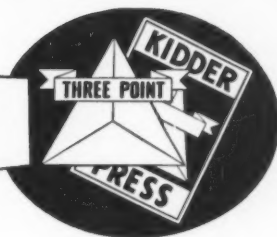
L'officiel de la Couleur, publication for the forecast of French high-fashion colors, is again available in this country, delivered to subscribers by air about six months before the opening of each season. In the packaging field, its far-ahead color information should be useful to designers, decorative paper converters, ink manufacturers, etc., who require a close check on color trends. Exclusive representation is held by **Fashions From France**, 610 Fifth Ave., New York.

The fall meeting of the **American Society for Testing Materials Committee D-14** will be held Oct. 17 and 18 at the A.S.T.M. headquarters, 1916 Race St., Philadelphia. This committee embraces the entire field of adhesives and is not limited to any special group of the more widely used material. Non-members who may be interested in participating in the work of the committee are invited to attend the meeting.

John F. Kurie, vice president of the **Assn. of National Advertisers**, has released to members of the association details of a technique to enable advertisers to test the relative sales effectiveness of point-of-purchase advertising displays. Basically, the test involves continuing checks in two or more comparable retail outlets in which the test displays have been installed. A report, entitled "General Description and Procedure for a Display Test," explains the technique and how it was used by the Wildroot Co. Copies are available at the association's headquarters, 285 Madison Ave., New York, for \$2.50 each.

"Standards and Labels for Consumers' Goods" (The Ronald Press Co., New York; \$5) is the title of a new book by **Jessie V. Coles**, University of California, that brings up to date the whole topic of informative labeling and standards for consumer goods. The author has considered such topics as consumers and their problems, labels on consumer goods, basic concepts of standards, how standards are gotten and used—the work of the American Standards Assn. and National Canners Assn. is reviewed—grade labeling and the present status of grade labeling and standards.

KIDDER POINTERS



No. 23.

Observations of trends and indications in packaging... noted by the manufacturers of Kidder "3 Point" Presses, Kidder Press Company, Inc., Dover, N. H.

A booklet on high frequency heat sealing describing two new low cost sealing units plus many suggested applications of this process is available from a manufacturer of these units.

Sixty-three of the nation's large scale grocers are now prepackaging produce according to the U. S. Dept. of Commerce.

Prepackaging of meats has given rise to a new phenomenon in retailing... the central prepacker. Serving smaller stores and those who find it impractical to maintain their own prepacking departments, a Rochester firm now supplies some 32 merchants with prepacked, labeled and graded meat on a percentage basis. Cards and trays overwrapped with cellophane are used by the newcomer "Redi-Pak".

Granulated sugar has been put up in individual servings on the west coast. Designed for hotel, restaurant and hospital use, each serving is in an attractively printed heat sealed cellophane pack; they are being well received because they are sanitary, easy to handle and have plenty of eye appeal to users.

Lightweight acetate vials directly imprinted with contents and brand information are rapidly replacing glass-plus-paper label in many instances. Drugs, cosmetics, instruments, chemicals — even small tools are examples. Called "Clearsite" vials, they are up to 80% lighter than equivalent glass containers.

A survey by QUICK FROZEN FOODS Magazine indicates that next year should see a tremendous boom in frozen juice concentrates. Many leading manufacturers will be in the business with plants which are going up right now!

The pros and cons of prepacked self service meats for the average retail store are discussed in an article in the July 1949 FOOD RETAILING Magazine. There's a lot to say on both sides and you can get a good picture of the situation from this article.

"Insulpak" a new corrugated container with insulating layers which permit long distance shipment of perishables via air or other rapid express without need for refrigeration, has been announced by a leading box maker.

"Freezer jars" glass jars designed for use in home freezers will be promoted actively soon. Containing extra room at the top to allow contents to expand, the jars thus prevent damage due to freezing.

How a liqueur producer slashed costs and improved his packaging at the same time by standardizing on one bottle for 12 different liqueurs... varying only the printed label... is told in an article in the August GLASS PACKER. There's some real food for thought there.

Polyethylene... the plastic that's taking over more and more packaging jobs every day... is analyzed for you in an article: "Polyethylene: uses and prospects". It's a good chance for you to understand what makes this plastic so attractive to packagers.

If you deal with frozen food packages... design... printing... construction... there's a valuable series of articles in the FOOD PACKER. First part appeared in July issue, second in August, third in September. Title: "Effect of Expansion on Foods and Containers Due To Freezing Action".

Potato chip packaging... critical factor in the summer when hot weather is a serious spoilage factor... is the subject of a penetrating article by J. H. Mitchell, Jr. of the Southern Research Institute, Birmingham, Ala. You can read all about it in the August, FOOD INDUSTRIES.

KIDDER PRESS COMPANY, INC., Printing Machinery, Dover, N. H.



PEOPLE DO JUDGE A PRODUCT BY ITS WRAPPER

In spite of the old sayings that intelligent people do not judge things by their appearance alone, modern supermarket and department store merchandisers know that people do judge many products almost solely by their packages.

This is particularly true for impulse items sold in self service stores, where the package must not only protect but *sell* the product on sight. Here, a well designed package carefully printed has that "quality look" that will often earn your product a trial . . . the first requisite to success.

And to assure a quality printing job, Kidder Presses combine the three essentials of excellent printing:

Control over the paper, proper distribution of ink and accuracy of the impression. These things are yours in:

The two new Kidder designs of MULTI-COLOR INTERCHANGEABLE CYLINDER OIL INK PRESSES . . . for metal or rubber plates.

KIDDER ANILINE-TYPE PRESSES — the famous Aniliners — for high-speed — high-quality runs . . . including the narrow "Cello-Printer", primarily for Cellophane.

CONTROL OVER
THE PAPER
PROPER
DISTRIBUTION OF
INK
ACCURACY OF THE
IMPRESSION



KIDDER

Manufacturer of "3 Point" Presses—so-called because they fulfill the three major requirements for perfect printing.



MULTI-COLOR
LETTER PRESSES

for waxed paper, box wrappers, etc.,
remound or sheet-delivered — up
to 72 inches in width.



"ANILINER" and "CELLOPRINTER"
MULTI-COLOR PRESSES

with gravure units — for decorative
papers, cellophane, glassine, etc.,
— up to 65 inches in width.



SLITTERS AND
REWINDERS

for paper mills, finishing rooms,
and converting plants — up to 115
inches in width.



AMERICAN FLOUR IS PROTECTED BY COTTON BAGS FOR E.C.A. SHIPMENT

When precious flour is consigned to the needy overseas (or for practically all other export use), it's shipped in sturdy, dependable cotton bags . . . the best container OVERALL!

Best because it assures a minimum of loss through breakage! Best because sturdy, good-looking cotton bags are much easier to handle, stack, and warehouse! Best because it has a high re-use and salvage value!

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EXACT WEIGHT Scale checking 5 lb. cellophane wrapped premium box of specially selected potatoes—T. E. Wilde & Son, Inc., Sacramento, Calif.

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Rare indeed is the food processing operation without scales. All modern methods today employ scales to control uniformity in compounding ingredients, check mispackaging, grade for quality, assure accuracy in volume consumer packaging and these are but a few uses. Everywhere scales are on guard to eliminate waste, improve food products, save time and labor costs and speed up operations. These are a food processor's vital cost control problems. For 33 years EXACT WEIGHT Scales have plugged the holes with weighing units expressly designed and built to produce better foods, easier, cheaper and more profitably. Ask the user of EXACT WEIGHT Scales, then write for details for your business.

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**to sell and
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Other features include electric eye registration for printed wrappers, self-centering paper roll holders, infeed conveyors 6, 9, 12 and 15 feet long.

The automatic labeling system offers far-reaching possibilities. The automatic labeler securely heat-seals a diecut label from a continuous roll (printed by Oliver) to the wrapper. If desired, a "blank" label can be imprinted with essential information just before it is applied. Rubber logotypes of the imprint items can be easily changed in a few seconds.

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"OLIVER"
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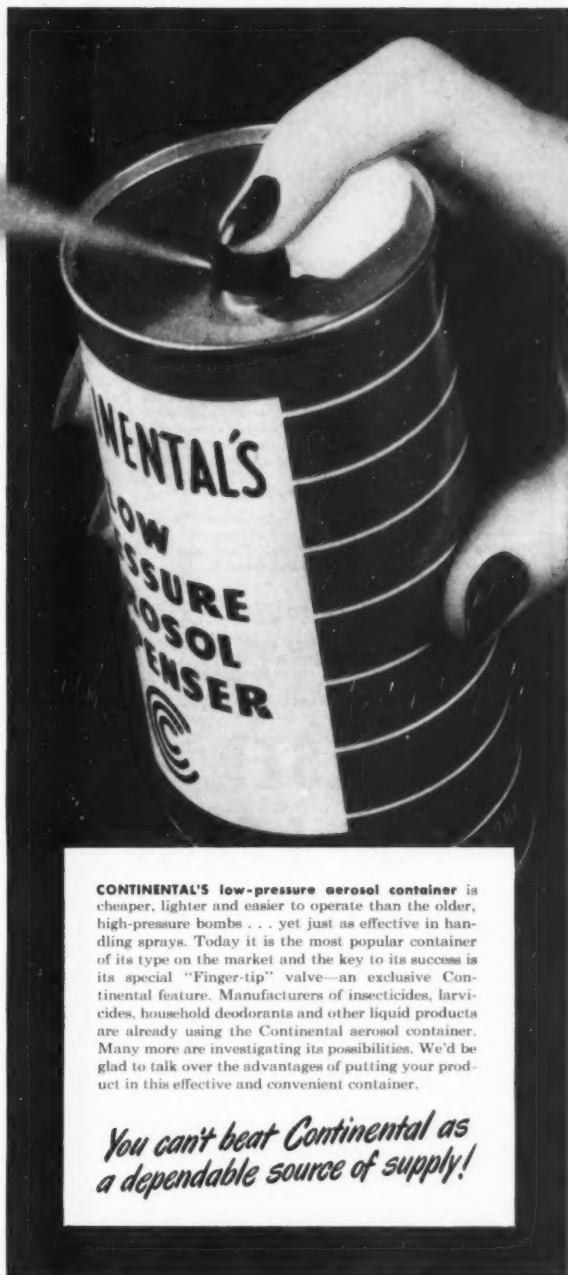
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CONTINENTAL'S low-pressure aerosol container is cheaper, lighter and easier to operate than the older, high-pressure bombs . . . yet just as effective in handling sprays. Today it is the most popular container of its type on the market and the key to its success is its special "Finger-tip" valve—an exclusive Continental feature. Manufacturers of insecticides, larvicides, household deodorants and other liquid products are already using the Continental aerosol container. Many more are investigating its possibilities. We'd be glad to talk over the advantages of putting your product in this effective and convenient container.

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a dependable source of supply!*

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NEW YORK 14, N. Y.



U.S. Patents Digest

Edited by H. A. Levey

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps are not accepted.

Noncrystallizing Printing Composition, E. E. Beard (to E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.). U. S. 2,476,952, July 26. A printing composition comprising a coloring matter and a liquid vehicle, color matter consisting at least in part of phthalocyanine compound selected from group consisting of copper-phthalocyanine and metal-free phthalocyanine, and a liquid aromatic hydrocarbon.

Quick-Drying Writing Ink, R. L. Mayhew (to General Aniline & Film Corp., New York, N. Y.). U. S. 2,476,991, July 26. A quick-drying writing ink comprising in solution copper phthalocyanine of benzene series having attached to the phenylene nuclei a plurality of heterocyclic sulfonamide groups.

Container and Closure Thereof, H. Rubin, New York, N. Y. U. S. 2,477,143, July 26. A container having an opening therein, surrounded by an upwardly extending neck, a cap-type closure member engaged with said neck to close opening, means to operate closure member, means comprising a tubular member engaging closure member exteriorly in a friction fit.

Article Holder and Container, L. Trecek (to The Celon Co., Madison, Wis.). U. S. 2,477,274, July 26. An airtight, germ-proof package for a tooth brush or like article comprising a tooth-brush holder with elongated body portion, integral upstanding relatively resilient ends, a tooth brush received removably and clampingly between resilient ends, and integral upstanding supports struck up from the body to support tooth brush intermediate ends.

Ribbon Reel Made of a Single Blank, W. H. Hawkins (to Freyberg Bros.-Strauss, Inc., New York, N. Y.). U. S. 2,477,333, July 26. A ribbon reel formed of a single blank having a pair of relatively long narrow finishing flanges, a relatively long narrow ribbon supporting portion between two of the long narrow sides of flanges and spacing said flanges.

Shipping Package, J. G. Dunneback (to J & I Steel Barrel Co., Pittsburgh, Pa.). U. S. 2,477,512, July 26. A shipping package comprising a drum-like container, a supporting plate loosely fitting the container, seating surface on inner wall of container, a retaining element having a portion seated in said seating surface, the seating surface being in the form of an annular groove coaxial with container and retaining element, being in the form of a splitting insertible into the groove.

Box, L. E. Vogt (to Farrington Mfg. Co., Boston, Mass.). U. S. 2,477,530, July 26. A box comprising side walls, a transverse wall interconnecting side walls, a plate attached to ends of walls, said plate having a peripheral flange extending around its entire periphery, the flange telescoping over said walls along three edges of the plate.

Container, T. H. Cribb, Spartanburg, S. C. U. S. 2,477,965, Aug. 2. A container having a bottom of greater length than width, a rectangular guide block secured to bottom centrally thereof with its long axis coincident with the longitudinal axis of bottom, a pair of supports of less length than the length of bottom but longer than bottom width, supports being pivotally attached to the bottom, and having longitudinally extending slots to permit sliding of support with respect to pivotal attachment.

Package Sealing Machine, E. B. Doolin, Dallas, Tex. U. S. 2,977,968, Aug. 2. A package sealing machine comprising, in combination, conveyor means for moving a package to be sealed through the machine, means for sealing the sealable portions of the package as it is moved by conveyor, position of sealing means in the machine being fixed.

Valve Bag, H. E. Lee (to St. Regis Paper Co., New York, N. Y.). U. S. 2,478,113, Aug. 2. A multi-ply valve bag having its body portion formed of at least three flattened tubes gusseted at their sides and including an inner tube surrounded by an intermediate tube and an outer tube, top corner portion of intermediate tube at the valve corner extending substantially beyond inner and outer tubes, such corner being folded inwardly of the bag to form

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U.S. Patents Digest
(Continued)

a valve with the extension of intermediate tube providing a flexible valve flap extension adapted to be pressed up against the inside top portion of bag by its contents when filled to check sifting of contents through valve.

Food Casing. R. K. Remer (to Transparent Package Co., Chicago, Ill.). U. S. 2,477,767, Aug. 2. Sausage casing comprising a tube of regenerated cellulose at least substantially completely and uniformly treated with a soluble edible coloring material transferable, on contact therewith, to the surface of sausage emulsion encased therein to color uniformly and completely the surface of said sausage emulsion.

Food-Encasing Material. R. K. Remer (to Transparent Package Co., Chicago, Ill.). U. S. 2,477,768, Aug. 2. Encasing material for artificially coloring foodstuffs comprising a permeable film substantially uniformly and completely impregnated with a soluble coloring material adapted uniformly to transfer to and color the film contacting surface of foodstuff encased therein and receptive to said coloring material.

Packaging and Supporting Sleeve. W. J. Sanderson and B. J. Westover (to U. S. of America as represented by the Secretary of Agriculture). U. S. 2,478,172, Aug. 9. In combination, a tubular shipping container having top and bottom walls, one of which is removable, a flexible supporting sleeve being split lengthwise, that part of sleeve adjacent split being turned inwardly away from inner wall of tube and having article-supporting means, the part of sleeve non-adjacent the split being shaped to follow the contour of tube.

Container-Filling Device. P. Darabaris, East Paterson, N. J. U. S. 2,478,251, Aug. 9. A vessel-filling device adapted to fill to a predetermined level a vessel having a support positioned below its rim and below said level, comprising a housing adapted to be used in upright position, said housing having a neck extending therefrom intermediate the height of the housing, said neck having two spaced longitudinal passages therethrough, one above the other.

Bottle Closure Means. L. R. Young, Seattle, Wash. U. S. 2,478,352, Aug. 9. A pouring attachment for a bottle comprising a tubular member adapted to fit within neck portion of a bottle and extend outwardly therefrom, a pouring spout on said tubular member above the bottle, a swinging closure member for said spout, pivot means in upper portion of spout swingingly supporting said closure member.

Container. C. O. Ball (to Owens-Illinois Glass Co., a corporation of Ohio). U. S. 2,478,358, Aug. 9. A flat blank of sheet material adapted to be folded to form a rectangular tubular body and an integral portion adapted to be folded to form a flat closed end for said body, blank being formed with parallel fold lines defining panels which form the sides of said body, blank including a narrow strip between and having its edges formed by one fold line.

Paper Container. C. O. Ball (to Owens-Illinois Glass Co., a corporation of Ohio). U. S. 2,478,359, Aug. 9. A blank of sheet material adapted to be folded to form a container having a rectangular body and a closed end integral therewith, said blank having parallel score lines defining panels which form sides of container, said panels including comparatively narrow panels alternating with comparatively wide panels, blank being formed with a score line perpendicular to and intersecting parallel lines and separating panels from bottom-forming portion of blank.

Paper Receptacle. C. O. Ball (to Owens-Illinois Glass Co., a corporation of Ohio). U. S. 2,478,360, Aug. 9. A flat blank of foldable sheet material shaped and provided with weakened fold lines adapting it to be folded to form a receptacle having a rectangular body and a closed bottom end.

Sealing Strip and Guide for Slidable Closures. R. A. Eastman and R. R. Eastman, Balboa Island, Calif. U. S. 2,478,470, Aug. 9. In a combined sealing strip and guide for attaching a sliding closure to the open end of a four-wall container, said strip having a continuous flat shoulder for engaging upper edge of container walls and having a depending flange extending down into interior of container at all four sides of same, said strip also having an inwardly facing slot extending along three sides of same and located in a plane above and partially overlying said flat shoulder.

Machine and Method for Packaging and Crushing Tablets. L. L. Sallisberg (to Ivers-Lee Co., Newark, N. J.). U. S. 2,478,505, Aug. 9. A tablet packaging and crushing apparatus comprising a pair of rotative elements having alternate recess and crimping surfaces, such elements being mounted for rotation with

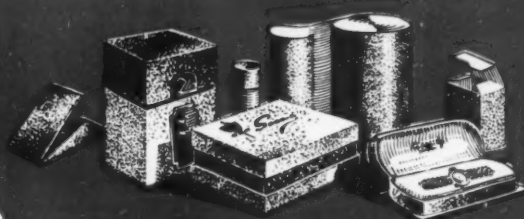
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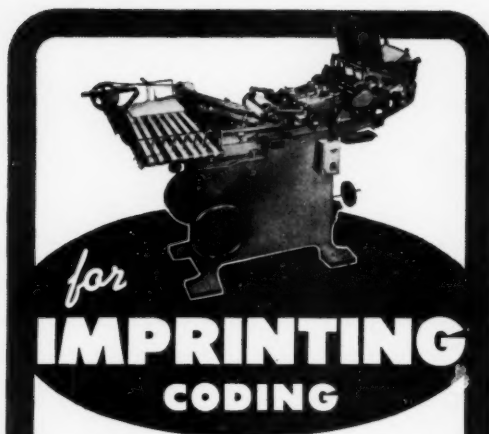
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Certain other processors, starting with bulk Flock and using spray, dip or screen methods, apply it to any shaped or flat surface that has been first prepared with an adhesive. Glass, wood, paper, metal, cork and plaster are naturals for Flock magic. So—set your thinking cap and let your imagination be your guide. Local paper merchants and processors will be more than happy to carry your planning into production.

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U.S. Patents Digest

Continued

the recesses and crimping surfaces coming into respective mutual engagement in rotation, means for feeding opposed layers of packaging material between said rotative elements and means for feeding tablets between said layers.

Package, W. D. McMahon, Long Beach, Calif. U. S. 2,478,412, Aug. 9. A package including a box having a body with one wall hinged to open, a plurality of sanitary napkins arranged in a pile in the box with only the uppermost one accessible for removal when the hinged wall is open.

Packaged Food Composition, M. R. Arnold (to E. I. du Pont, de Nemours & Co., Inc., Wilmington, Del.). U. S. 2,478,619, Aug. 9. The method of preparing a dough for distribution which comprises incorporating in the dough at least one of the slow-acting baking acids from the group consisting of sodium acid pyrophosphate and glucono delta lactone, packaging the dough in a container adapted to limit expansion of the dough, subjecting the packaged dough to conditions adapted to produce relatively rapid evolution of the gas within the dough.

Portable Crate Having Sliding Pivoted Closure, R. R. Willis and L. L. Bayers, Oakland, Calif. U. S. 2,478,883, Aug. 9. A portable crate comprising an enclosed body with a gateway therethrough, posts defining sides of said gateway and having longitudinal guide channels with front notches therein, a pivot tube extending across top of gateway above posts, a gate having a cross bar guided in said channels and having grille bars thereon pivotally slidable in slots in pivot tube, and a sheathing plate covering front end of body and having a portion bent around said posts and forming stops for cross bar above notches.

Can-Opening Key, G. P. Ziehmer, Jr. (to American Can Co., New York, N. Y.). U. S. 2,478,962, Aug. 16. A tearing strip can-opening key designed to be attached to a can by welding, said key comprising a shank having a handle at one end and an elongated depression having a relatively thin bottom wall formed in the other end, a slot in bottom wall and a welding projection formed integral with bottom wall, key being released when key handle is lifted.

Apparatus For Heat Sealing the Open Ends of Ampoules, J. L. Pujol y Font, Newark, N. J. U. S. 2,479,024, Aug. 16. An apparatus having in combination a drum having connection to be charged with gas under pressure, means for supporting a number of ampoules in pre-arranged position within drum, a heating arc for sealing said ampoules.

Tag-Forming and Attaching Combination, S. C. Stoneham, Bakersfield, Calif. U. S. 2,479,028, Aug. 16. In a tag-forming and attaching combination, an elongated base having a working side and having a seating side that is sealable on a surface to be tagged or labeled, said base including a carriage track along working side and having an apertured die portion therethrough.

Paper Can Making Machine, M. H. Sidebotham, Newton, Mass. U. S. 2,479,050, Aug. 16. In a machine for making cylindrical paper containers, comprising means for positioning a paper sleeve on the end of a mandrel mounted on a horizontally rotatable turret, apparatus for cutting, forming and inserting a bottom disk into the end of the sleeve, a crimping tool for turning one end of the sleeve inward, means for positioning a second paper sleeve over the first sleeve on the mandrel, a second crimping tool for crimping adjacent ends of sleeves tightly against bottom disk and a device for drawing container from mandrel.

Stencil Duplicating Inks, T. S. Chambers and R. T. Florence (to A. B. Dick Co., Chicago, Ill.). U. S. 2,479,037, Aug. 16. A stencil duplicating ink made up of a tintorial agent, a water-soluble cellulose derivative and a latent aldehyde selected from a group consisting of glyoxal and pyruvic aldehyde.

Carton, J. W. Cox (to Shellmar Products Corp., Mt. Vernon, Ohio). U. S. 2,479,213, Aug. 16. A knock-down cellular carton comprising a unitary blank of sheet material formed with parallel fold creases to provide a flexible bottom section and front and back wall sections having their lower margins hinged to opposite margins thereof and a cross-partition section hinged to the top margin of the front wall section, said cross partition section being subdivided into a plurality of transversely extending cross-partition members each flexibly connected at one end to hook at its other end.

Coating Compositions and Articles Coated Therewith, M. J. Roedel (to E. I. du Pont de Nemours & Co., Wilmington, Del.). U. S. 2,479,409, Aug. 16. A metal container for the

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AUTOMATIC PACKAGING MACHINERY. Specifications, floor plans, explanation of operations, and illustrations of high speed automatic packaging machines are presented for feeding and bottom sealing, net weight weighing, top sealing and closing, tight wrapping, filling and sealing, double package making, and tea bag making. 16 pages. Pneumatic Scale Corp., Ltd. (10-1)

CORRUGATED BOXES AND PACKING MATERIALS. Descriptions and illustrations of various types of standard corrugated boxes and packing materials are presented in this 30-page booklet. A full page chart for the selection of corrugated specialty boxes is also given with corresponding illustrations. Hinde & Dauch Paper Co. (10-2)

HOEPNER SCALES AND BAGGERS. General illustrated bulletin giving data on various automatic scales and package closing equipment for both bulk and consumer packaging of various products in paper and textile bags. Consolidated Packaging Machinery Corp. (10-3)

SHIPPING CASES. This 76-page handbook presents such information as: definitions of various terms used in the paperboard and container industries; illustrations of corrugated solid fibreboard containers and products, with pertinent data on each; and various carrier regulations. Robert Gair Co., Inc. (10-4)

SPEED PACKING. This illustrated manual gives the uses of Corroflex flexible corrugated which may be used for inner or outer packing, its advantages, instructions for its use, and many samples of the product itself. Sherman Paper Pkts. Corp. (10-5)

HEAT SEALING ENVELOPE STOCK. Colorful folder gives the advantages of heat sealing envelope stock, an illustrated explanation of construction, and samples of packages used by leading manufacturers. Reynolds Metals Co. (10-6)

KIMPAK CREPED WADDING. This illustrated folder gives swatches, specifications, and the various uses of Kimpak which is an industrial creped wadding made of wood cellulose fibers. Also, there is a list of government and railroad packaging specifications with which Kimpak complies. Kimberly-Clark Corp. (10-7)

TRANS-BO-MATIC. This profusely illustrated booklet explains the operations of the American Trans-Bo-Matic machine in fabricating set-up boxes from sheets of rigid transparent plastic, and presents the uses and specifications of this machine. 12 pages. The American Tool Works Co. (10-8)

THILCO SPECIALTY PAPERS. The various types of Thilco specialty papers such as glassines and greaseproof, waxed thermo-

plastic, printed and embossed, and waterproof protective, are presented in this illustrated 14-page booklet with their various uses in the packaging industry. Thilco tailor-made bags are also presented. Thilmany Pulp & Paper Co. (10-9)

LABELING MACHINE. The Pony Labelrite is presented in this pamphlet with specifications, a cut-away view of its parts, and its outstanding features. Many examples of the machine's versatility are illustrated and described. New Jersey Machine Corp. (10-10)

MARKING MACHINES. Descriptions and illustrations of seventeen different marking and code-dating machines used for imprinting, indenting, embossing, etching and hot-stamping many kinds of containers, labels, parts and products, are contained in this 8-page catalog. Adolph Gottsche, Inc. (10-11)

CUSTOM LAMINATION. This illustrated 14-page booklet presents various difficulties that have been faced by manufacturers, and tells how custom lamination permits the creation of new substances through the permanent bonding together of dissimilar materials, thus providing an answer for each problem. The Dobeckmun Co. (10-12)

TYPE STYLES. Various styles of type for use on Kingsley machines are shown in this folder, with prices for each. The advantages of Kingsley foil, sizes, and colors available are also included. Kingsley Stamping Machine Co. (10-13)

COMPANY ANNIVERSARY PUBLICITY. This 12-page illustrated brochure presents a plan for company anniversary advertising, some slogans, packaging ideas, and many other methods of using a company anniversary for promotional purposes. Samples are included. The Dennison Mfg. Co. (10-14)

CANNING BELTS. This illustrated bulletin describes various types of conveyor belts, the advantages of flanged belts, the advantages of endless belts, the proper care of conveyor belts in general, and pertinent data on belts put out by The B. F. Goodrich Co. (10-15)

ALUMINUM FOIL. A reprint of a series of 3 articles constituting a summation of years of research by one of the leading producers of foil. Such information as the properties of aluminum foil for packaging, the structure of foil packages, and performance of packaged products is included. Aluminum Co. of America. (10-16)

MERCHANDISING CONTAINERS. Illustrated bulletin describes in chart form the manner in which the appearance of a few packages has been improved by the use of Nuvopak merchandising containers. A display container is also illustrated and described. Cambridge Paper Box Co. (10-17)

GUMMED TAPE. This 12-page brochure explains the advantages of Itatix gummed tape and the proper method of storage. Also, two gumming machines are presented with pertinent data on each. The proper method of applying tape to the container is also illustrated and described. Nashua Gummed and Coated Paper Co. (10-18)

WRAPPERS. The advantages and features of Campbell wrapping machines are illustrated and described in this 16-page full color booklet. Sections of line installations in various candy companies are pictured. Hudson-Sharp Machine Co. (10-19)

CANDY WRAPPING MACHINES. The operations, advantages, and features of the Hayssen carton wrapping machine for the candy industry are presented in this illustrated brochure. A few general types of candy packages are shown. Hayssen Mfg. Co. (10-20)

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DUREZ. Information is given about Durez, the trade name for the phenolic resins and molding compounds manufactured by Durez Plastics & Chemicals, Inc. Various forms, means of production, uses, methods of molding, design suggestions, and finishing data is presented. A tabulation on the physical properties of this material is included. Durez Plastics & Chemicals, Inc. (10-21)

FABRICATION OF EASTMAN ACETATE SHEET. Data is given in this 12-page booklet about cutting and blanking, creasing and folding, cementing, drawing, embossing, beading, blowing, and heat lamination of Eastman acetate sheet which is a thermoplastic-type, cellulose acetate plastic in sheet form. Eastman Kodak Co. (10-22)

SET-UP BOXES. This illustrated 14-page brochure describes the structure of set-up boxes, specialty boxes for greater sales, advantages of trade name set-up boxes, and suggestions on color, design, and print. Six pages are devoted to illustrating and describing various set-up boxes now in use by leading manufacturers. National Paper Box Mfrs. Assn. (10-23)

WAXED PAPER. The history of waxed paper, a description of how it is made, and explanations of its various uses are presented in this 3-page bulletin. Waxed Paper Institute, Inc. (10-24)

MATCHED WRAPPING AND BAGS. This illustrated brochure presents the features and advantages of using "Broad-Glase" matched wrappings and bags. Samples are included with information on each. Thilmany Pulp & Paper Co. (10-25)

COLOR GUIDE. This 21-page color guide shows color specimens with IPI order numbers and also the specification and description of each color in accordance with the American

Standards Association. International Printing Ink, Div. of Interchemical Corp. (10-26)

PRINTING PRESSES. Complete specifications, description of operation, technical data, and a drawing are presented for each of 5 different printing presses produced by H. H. Heinrich, Inc. (10-27)

AUTOMATIC PACKAGING MACHINES. This illustrated 8-page booklet presents the specifications, uses, and advantages of the Transwrap machine Model B, designed to package bulk items, and the Transwrap machine Model A, designed to package individual items and small quantities. Transparent-Wrap Machine Corp. (10-28)

RUBBER STAMPS. Complete specifications and illustrations of each stamp and its marking are given in this folder on rubber stamps produced by the Industrial Marking Equipment Co. (10-29)

SEALING MACHINE. This 2-page bulletin with a photograph attached presents the operation facts, output, complete specifications, versatility, fuel consumption, and other pertinent information about the Ampseal, Type C6 sealing machine made by the Perfektum Products Co. (10-30)

PRINTING AND PAPER CONVERTERS. This folder gives complete specifications, features, and other information about five machines—the bag machine, rewinder and slitter, four color anilox press, two color anilox press, and anilox press. Manhasett Machine Co. (10-31)

SEMI-AUTOMATIC LABELERS. Complete specifications, illustrations from all sides, front and side elevation drawings, and other pertinent data are given about the Model S Semi-Automatic Labeler for front and back labels, all-around labels,

neck labels or foil, to all sizes of containers. Economic Machinery Co. (10-32)

AUTOMATIC FILLERS AND TOP AND BOTTOM SEALERS. Complete specifications, features, and description of operations of Packomatic carton fillers and top and bottom sealers are described in this illustrated booklet. Floor plans for the combination of various machines are included. J. L. Ferguson Co. (10-33)

CELLOPHANE WRAPPER. This illustrated bulletin describes the operation, gives complete specifications, and mentions other pertinent data on the May-Flex wrapper. Floor plans are included. Wright Machinery Co. (10-34)

RETAIL STORE PREPACKAGING. Packaging films recommended for satisfactory retail store point packaging are presented in this folder. Prepackaging pointers on refrigeration, wrapping, sealing, storage, labeling, etc. are included. Sylvania Div., American Viscose Corp. (10-35)

WATERPROOF BAGS. Various types of taped tops, printed bags, and seams on waterproof bags are illustrated and described in this 12-page booklet. Descriptions are given of different types of packaging problems that can be solved by the use of waterproof laminated textile bags produced by Bemis Bro. Bag Co. (10-36)

PAPER PACKAGING MACHINES. This illustrated folder gives the specifications, features, and other important data on the Morpac paper packaging machine which is designed to package such things as ream paper, tablets and pads, looseleaf fillers, school and all varieties of bound books and most rectangular objects within its wrapping size range. Lynch Corp. (10-37)

VACUUM FILLERS. Illustrated folder describing the working principles of General Mills vacuum fillers, the type container the filler handles, and a description of both the single head machine and the rotary machine. General Mills, Inc. (10-38)

PROCESS PUMPS. Cut away view, specifications, descriptions of parts, features, and other important data on process pumps are contained in this 4-page folder. Diagrams and tabulations are also presented on the 5 sizes of these pumps which are designed for handling corrosive and abrasive liquids. Allis-Chalmers Mfg. Co. (10-39)

METAL BOXES. Exclusive designs of metal boxes lithographed in attractive colors for all seasons by Empire Can Corp. are illustrated and described in this 4-page brochure. Empire Can Co. (10-40)



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NEW YORK 17, N. Y.

Continued

Container for and Method of Wrapping Irregular Objects, H. A. Glendle (to Westinghouse Electric Co., East Pittsburgh, Pa.). U. S. 2,479,453, Aug. 16. In combination, a container, an object enclosed therein and having a body portion and a plurality of lateral projections each extending longitudinally outward in a direction different from that of another projection from about the center of the body portion, said container comprising a cradle device with socket holding body portion snugly against contact with the container.

Container For Aseptic Material. J. N. Masci (Johnson & Johnson, a corporation of New Jersey), U. S. Pat. 2,795,541, Aug. 23, 1958, claims a container for aseptic materials and the like comprising in combination: a tube, a frangible hermetically sealed container for tube, length of sealed container being greater than length of tube, a shoulder inside the container between end of tube and end of container, and an elongated plug substantially filling the space between shoulder and tube, container having a weakened portion between end of tube and shoulder to assure breaking the container between ends of plug.

Device For Holding Food Products and the Like. J. H. Pritchard, Los Angeles, Calif. U. S. 2,479,700, Aug. 23. In a holder, a rigid element and pocket providing members flexibly secured respectively to the opposite sides of element above lower end thereof, members extending beyond the lower end of element and being adapted by opposite inclination mutually to support each other and element in an upright position on a supporting surface.

Display Box Easel Cover, B. J. Davidson (to National Biscuit Co., New York, N. Y.). U. S. 2,479,910, Aug. 23. An easel for supporting a box in display position formed from the cover for the box comprising a back brace section having triangular sides and a closed lower end at the bases of the triangular sides, a triangular support having an inclined supporting surface and having its apex resting on closed lower end and between triangular sides, and a hinge and tension section connecting the apex of support with back brace at a point spaced from bottom of brace.

Anti-Fungus Wrapper and Method of Pest Control, L. H. Flett (to Allied Chemical & Dye Corp., New York, N. Y.). U. S. 2,480,010, Aug. 23. A method of pest control which comprises subjecting organic material subject to infestation to the action of a dialkyl ester of di-chlorosuccinic acid in which the alkyl groups each contain not more than four carbon atoms.



Our Bottle is the answer to your production and packaging. Simple, easy to fill and label, and attractive. It sprays liquids or powders. It drops; it squeezes. Call—Write—or Wire us for information and prices.

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You find every packaging feature that "pays off" for you in increased production at lowest cost in Amsco bag sealing machines. Maintains a fast, steady flow of sealed bags with no handling—bags automatically carried through folding, and sealing operations:

No other machines offer so much for so little!

FREE! WRITE TODAY FOR ILLUSTRATED BROCHURE AND INFORMATION ABOUT Machines for ☐ Bag Sealing ☐ Bag-Making, ☐ Bag or Carton Filling, ☐ Wrapping, ☐ Sheet-Gluing.



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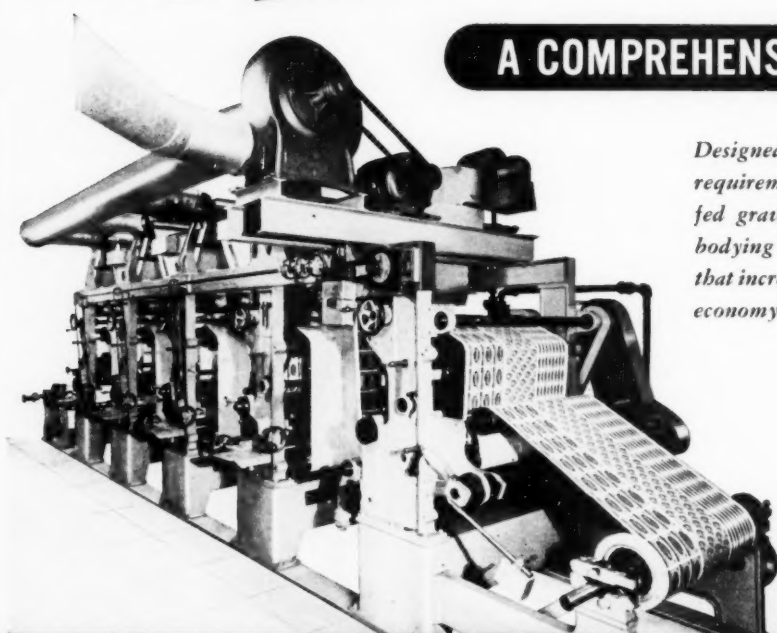
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A COMPREHENSIVE LINE OF



Designed to meet every modern requirement of the finest web-fed gravure reproduction. Embodying many exclusive features that increase speed, accessibility, economy, accuracy and efficiency.

"pa"

four color multigravure press

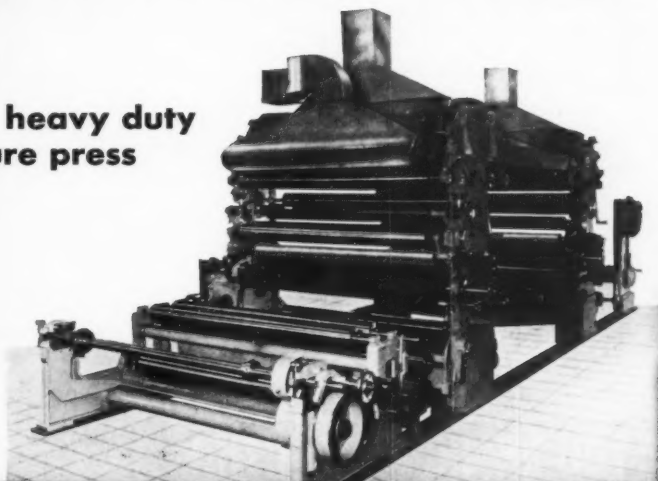
Built in web widths of 32" and 42". For printing on glassine, cellophane, film, laminated foils, and a wide range of papers. Will print four colors one side, two colors both sides, or three colors one side and one color other side. Operating speeds up to 450 feet per minute.

Press comprises four printing units, pull roll with slitters and center shaft rewind. Rotary sheetor or folder can be added. The "PA" presses are used for printing gift wraps, labels, box wraps and candy wraps, and an extensive range of special purpose webs.

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"hd" two color heavy duty rotogravure press

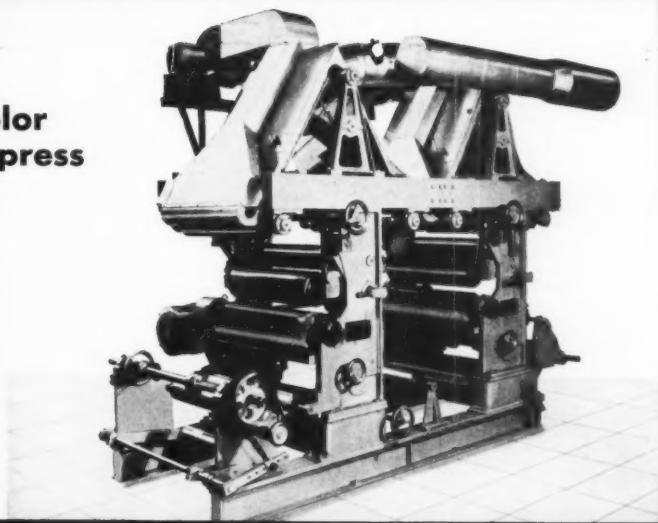
Runs in web widths of 56", 62" and 72". For printing two colors one side, or one color on each side of the web. Operating speeds up to 600 feet per minute on paper, tissue, film, laminated foil and light board. Can be equipped with a folder for magazine and newspaper work. "HD" presses are used by converters for decorated papers, nursery tissues and bags, cover papers, soap wraps and other specialties.



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Prints maximum web width of 24" and delivers rewound roll only. Ideal for cellophane, paper and laminated foil. Also available in a three color model. These models are available at an extremely low cost.



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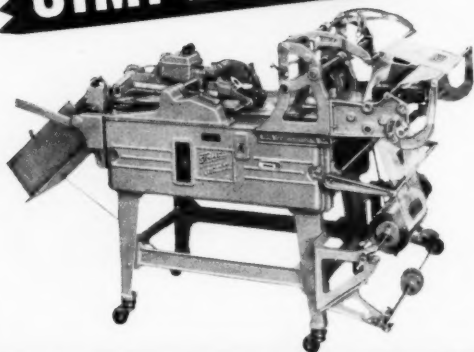


American Type Founders

200 Elmora Avenue, Elizabeth B, New Jersey
KLINGROSE GRAVURE DIVISION

Everything for the printer in **LETTERPRESS. OFFSET. GRAVURE**

With a
SIMPLEX—



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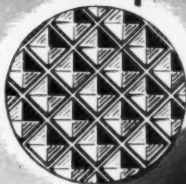
The SIMPLEX bag-making machine appeals not only to concerns who use bags by the millions, but also to the smaller concerns who use only a few thousand bags per month. Those who use bags made from any of the thermoplastic-coated, heat-sealing materials, or laminated sheets, find that an investment in a SIMPLEX pays off quickly. The SIMPLEX is a sturdily built, accurate, high speed machine which will turn out bags at speeds up to 5000 per hour. It is simple to operate. Any average, intelligent girl can run one and make perfectly formed, heat-sealed, plain or printed bags of either single or duplex types. Size adjustments are easily made; lengths infinitely variable through crank adjustment. Two machines are offered. Model 1 makes bags up to 9" wide by 16" long, flat or gusset square bottom types. Model 4 makes the larger sizes up to 12" wide by 20" long. Mail us samples of the bags you are using and we will gladly make recommendations.

A wide range of attachments is available: Electric eye control; heat seal labeller which applies labels simultaneously with the making of the bag; bottom crimper; brand name imprinting and dating attachments.

Simplex

WRAPPING MACHINE COMPANY
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EVENFLO aniline printing rolls



**—METER THE INK
FOR BEST RESULTS!**

EVENFLO ENGRAVED INKING ROLLS

eliminate ink waste, poor quality runs and rejects due to faulty inking and need no adjusting. New Evenflo engraved ink-metering rolls make tedious adjustments unnecessary. Ink is fed in the exact quantity necessary for fine presswork, continuously and automatically. No press time is lost, no ink wasted and less printing stock is spoiled due to poor inking.

NO-FLEX PLATE ROLLS AVAILABLE ON SHORT NOTICE AT LOWER COST

No-Flex—the new plate rolls that completely eliminate flexing and whipping—are your guarantee of a perfect impression. Special high speed lathes and equipment and improved methods of manufacture mean you get precision made rolls, quickly, and at lower cost. All No-Flex rolls are ground finished to your exact specifications and carefully inspected before shipment. The next time you need plate rolls, call Pamarco for faster service, lower cost and a better printing job. Quotations on plate, impression, and special rolls supplied promptly.

PRESS BUILDERS

Evenflo rolls, installed as original equipment, make your presses easier to sell because they print better, use less ink and require less operator attention. Inquiries from press manufacturers are invited. Prompt estimates on receipt of specifications.



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**—the handy way to
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No need to set up a machine for testing ink. Quick as a wink, Evenflo Hand Proofer produces an exact sample. Interchangeable rollers to match the one in your press or presses equipped with other than Evenflo rollers.

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heavy spiral tube winder



Here's a superbly engineered and constructed machine for manufacturing fine cylindrical paper products. Tubes produced range from $\frac{3}{4}$ " to 13" O.D. and can have up to 30 plies or 1" wall thickness.

You'll be TICKLED to TICKLE this Winder. The Jerk is gone—JOGGLE the Clutch Bar and you'll be amazed how the Webs are eased into the wind.

You're out of the JUNGLE of Shafts, Motors, Drives and Belts when you thread this Winder. Walk around this Winder with surety and safety.

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Paper Conversion Machinery

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is now available about an entirely new, low priced, versatile portable laminator which will laminate all types of films, foils, paper-board, etc., using heat, pressure, liquid adhesives and/or spray solvents.

Its portable feature and low operating cost makes it suitable for both small and large runs.

Coupon clipping or letter writing unnecessary to secure this FREE information. Just write your name, position and "Modern Packaging" on your company's letterhead and mail it to

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"Permanent Protection That's Perfection"

Tin-use restrictions end

Restrictions on the uses of tin, regulated since early in the war, are eliminated in a sweeping revision of the U. S. Dept. of Commerce basic tin conservation order M-43 and by revocation, as of Dec. 1, 1949, of conservation order M-81. The amendment of M-43, now in effect, provides for the relatively free import of the metal by private business. Order M 81 sets specifications for the use of tin in the manufacture of cans. The specification restrictions on closures for certain food containers, presently embodied in order M-43, will also be lifted Dec. 1.

Latest estimates of world production and consumption, reached at the recent conference of the International Tin Study Group in London, are as follows: Production for 1949, 170,000 tons; for 1950, 190,000 tons; for 1951, 205,000 tons. Estimated consumption figures are 138,000 tons in 1949; 158,000 tons in 1950 and 162,000 tons in 1951.

Although end-use restrictions of M-43 are eliminated, the general framework of the order remains in effect and the following controls will continue to be exercised by the Commerce Dept.: (1) Allocation of all pig tin. (2) Inventory controls on pig tin and all materials containing tin. (3) Reports by holders, distributors, importers and users of tin. (4) Import controls on pig tin and materials containing tin.

All pig tin containing less than 99.65% of tin, including stocks of these grades held by the Reconstruction Finance Corp., and all private imports of pig tin of any tin content will be allocated to manufacturers without regard to the end use or to the present allocation quotas.

RFC stocks of pig tin containing more than 99.65% of tin will be distributed to users according to present allocation quotas, after consideration is given to all other receipts by them of such grades. Allocations of the RFC stocks are being continued as an interim measure, pending re-establishment of private supply channels. As privately held supplies increase, allocations from RFC stocks will be curtailed and discontinued on a date to be announced.

Plan and result

(Continued from page 106) categories of a well-balanced family; their step-by-step increase in size achieves good shelf appearance and provides sufficient different sizes to accommodate items which will be added to the line in the future.

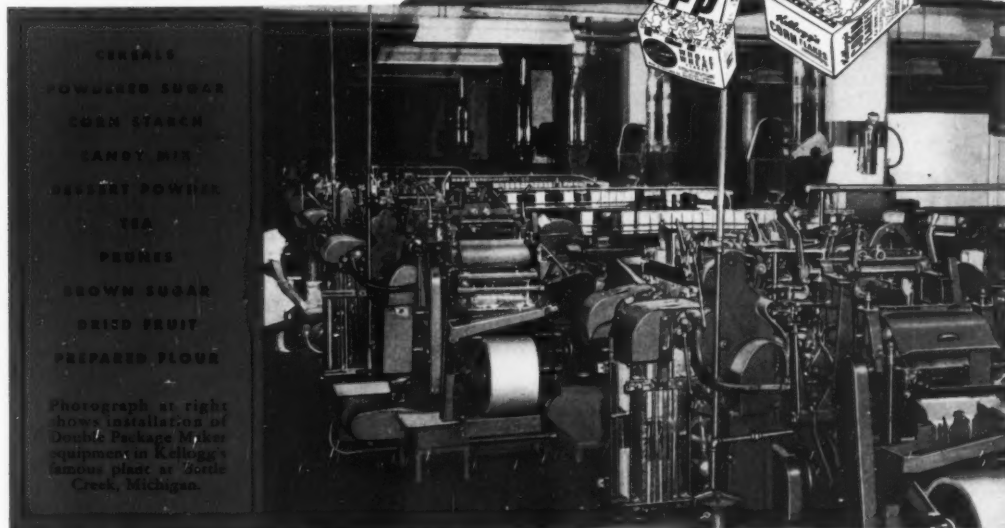
The fact that 17 new boxes replace 177 old ones means: (a) that inventory will be made much simpler, (b) that operations will be facilitated and (c) that a much more efficient use of storage space for packaging will be realized. For example, the company formerly used 10 different telescope set-up boxes which had a total volume in storage of nearly 800 cu. ft. for a year's requirements. This volume, mostly air, was required

QUESTION:



What makes self-dispensing cartons like these possible?

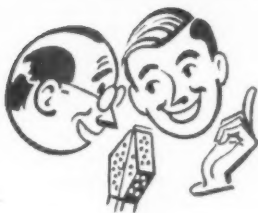
Foods now packaged on this type machine:



CEREALS
POWDERED SUGAR
SWEN STARCH
LARDY MIX
BEEFEE POWDER
TEA
FRUITES
BROWN SUGAR
DRICD FRUIT
PREPARED FLOUR

Photograph at right shows installation of Double Package Maker equipment in Kellogg's famous plant at Jolly Creek, Michigan.

ANSWER:



Pneumatic's Double Package Maker machine!

ward when Pneumatic developed the machine to make it.

Simply stated, Pneumatic's Double Package Maker shapes a protective paper lining, then forms an outer carton around it to produce a hand-in-glove fit. The result is an exceptionally tight container that permits maximum fill. One machine, one operation — but double protection for the product! Out of this idea, Kellogg developed its ingenious Kel-Bowl-Pac that opens to form a receptacle

from which, with cream added, the cereal can be eaten!

Kellogg, like many famous companies selling many different kinds of products, in packages large and small, uses Pneumatic machines of various types. Pneumatic builds more than ninety different packaging and bottling machines designed to help industry do a better packaging job at a "lower cost per container".

★ ★ ★

PNEUMATIC SCALE CORPORATION, LTD., 82 Newport Avenue, North Quincy 71, Mass. Branch Offices in New York, New York; San Francisco, California; Chicago, Illinois; Los Angeles, California; Seattle, Washington.

PNEUMATIC

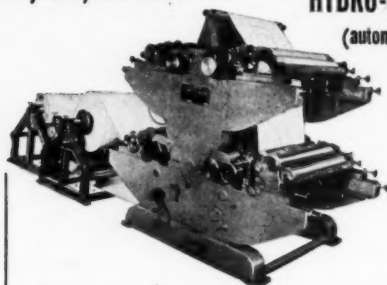
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"WOLVERINE HYDRO-PRINTER"

(automatic hydraulic

Aniline
Printing
Press)



Investigate the many new technical innovations and improvements:

1. Hydraulic, instant on and off impression control.
2. Free wheeling, constant rotating ink rollers.
3. Instantaneous running register control.
4. One single impression drive gear (no back lash).
5. Most rigid solid and compact 5-inch frame construction.
6. A complete one push-button controlled press.

Check and compare these, and many other new features with any other Aniline Press on the market and then give your plant, and press operators the finest press to work with.

* Widths from 31" to 122" * From two to twelve colors

Excellent for the speedy, highgrade production in printing all kinds of paper, board and indispensable for cellophane, polyethylene saran and any other plastic films and foils.

Wolverine PAPER CONVERTING
MACHINERY CORPORATION
19210 STANSBURY AVENUE, DETROIT 21, MICHIGAN

in storage before the boxes were filled and shipped. The new packages, folded flat when empty, achieve a space reduction established at 15 to 1 on nearly 1,000,000 accessory boxes used each year.

Cost

It should be noted that the program involves a 31.7% increase in actual box cost. The company is convinced that this increased cost will be offset through savings in the purchasing and storing operation; the tremendously improved protection of the product, resulting in reduction of damage, increased acceptance and sales; and the general intangible value of an adequate and appropriate packaging program.

In addition to these savings and advantages, a preliminary time study showed a packaging labor time of 30 seconds for boxing a single typical item in the new package, as compared with 90 seconds standard time for the old package. Mr. Apsey points out that this two-thirds time saving may be on the optimistic side and is not taken as a final conclusion, but it indicates that a substantial saving in labor time will contribute to offsetting the increased cost of the boxes under the new program.

CREDITS: Package design and development, Royal Dadmun, Baltimore, Md. Trays and sleeves, Simplex Paper Box Corp., Lancaster, Pa.

ARE YOUR LABELS DOING THIS?



Dry vegetable packaging

More and more grocery dealers are beginning to prefer selling rice, dry edible beans and peas packaged in transparent film, according to a recent survey made by the U. S. Dept. of Agriculture of sales by 350 wholesalers and retailers in 30 cities. In these cities, solid carton and kraft packages seemed to be losing favor, with the window-front cartons and all-cellophane packages growing in popularity, it was found.

Stronger and more durable cellophane is being used to assure less shelf breakage, the study brings out. More of the heat-seal type of cellophane is being used to take advantage of all-automatic machinery for making, filling and sealing bags.

Sales are increased by a display of high-quality, attractive packages of beans, peas and rice in retail stores because many housewives decided to buy on impulse, the survey indicated.

The study in which these indications appear is part of a larger study to be made for developing new processing and packaging techniques that will reduce the waste from package breakage and increase eye appeal and sales of these products. During the last five years there has been a general shift from bulk handling to consumer-package merchandising of rice, beans and peas. Before the general study of packaging materials was made, it was considered essential to learn what the preference of the trade is on package sizes and types among the various packages available.

PRE-PACKAGING... IN CONSUMER UNITS

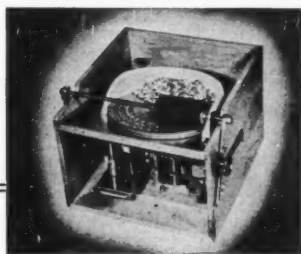
Wrapping natural cheese in consumer-size packages is a simple, automatic operation with the Hayssen Wrapping Machine. Because it is low in initial cost . . . speedy, with variable speed change . . . dependable, and easily adjusted to accommodate a wide range of sizes . . . manufacturers find it to their advantage to depend on the Hayssen to do it automatically. Thermostatically controlled electric sealing provides proper sealing performance, and for those who use printed overwraps, the Hayssen Electric Eye assures perfect printing registration. No matter what type of wrapping material you choose to use, there is a Hayssen model to meet your requirements. Write to the factory for further information on how the Hayssen is serving other manufacturers.

HAYSSSEN MFG. COMPANY • SHEBOYGAN, WIS.

Hayssen
ELECTRIC EYE
WRAPPING MACHINES



•
It pays to
wrap the
HAYSSSEN
way
•



The PerfeKtum TAB-COUNT Tablet Counting Equipment

A unique device which permits rapid and correct counting of tablets, capsules, pellets, lozenges, veterinary and poultry supplies and packing same into any size or shape container such as bottles, vials, jars, cans or boxes.

The TAB-COUNT operates by count—not by weight, eliminates overcounts and does not require any tiresome pulling, pushing or shaking, being entirely electric in operation. Simple to operate and economical to use.

Write for complete literature.

PerfeKtum
PRODUCTS COMPANY

Established 1922

300 Fourth Ave. New York 10, N. Y.



NOW you can STAPLE IT

faster—neater—surer!

INSTANTANEOUS—automatic—fast
as you can feed it.

Neater—Positive . . . cannot miss or
skip or repeat to mar the work.

STAPLEX is the modern high speed
production stapler. (No more hand
or foot levers.) Cuts costs—saves
time, labor. Write

*Versatile . . . ideal for
bag closures, counter
displays—correspondence,
manifolds, bill-
ing, etc. How fast,
how neatly, do you want
to staple?*

THE STAPLEX COMPANY

452 50th St., Brooklyn 20, N. Y.

Be modern—fasten it the

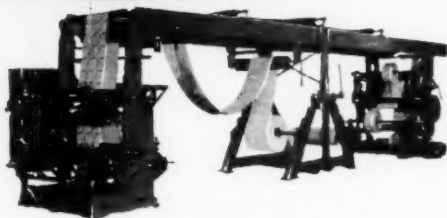
STAPLEX

way



MANHASSET

MACHINES FOR CONVERTERS



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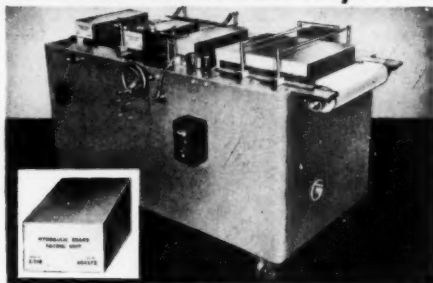
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CREDIT: Boz, Gaylord Container Corp., St. Louis, Mo.

Package function

(Continued from page 142) can be obtained in products packaged in paperboard cartons by a simple, tight paper overwrap applied with a water-base adhesive so that the wrapper shrinks tight onto the carton, leaving no cracks or crevices through which insects can readily enter or powdered products leave the package.

☆☆☆

This discussion of package materials as the modern counterpart of Grandad's brown paper bag would not be complete without some attempt to answer the question: "Will the new plastic films and metal foils displace waxed and converted paper as packaging materials, just as waxed paper and chipboard cartons have in part replaced the once universal paper bag?" We have all been impressed with the spectacular results achieved during the war in packaging army rations and ordnance parts to withstand humidity and temperature conditions far more severe than normally encountered within the domestic limits of the United States. However, many who are not directly connected with packaging problems may not have been aware that considerations of protective quality and light weight were paramount to the armed services and cost placed in a secondary position. Private packaging for the grocery trade in a postwar domestic economy cannot at present justify the use of the more expensive plastic and metal-foil combinations, except for a few relatively high-priced products. Furthermore, many of the newer specialty wrappers cannot be handled at optimum production rates without excessive wastage on many of the conventional old-style packaging machines. Machine development now in progress may be expected to change this materially in the future.

Until the chemical industry can produce a synthetic film-forming or coating material superior to paraffin and available at no higher cost, it would appear that waxed

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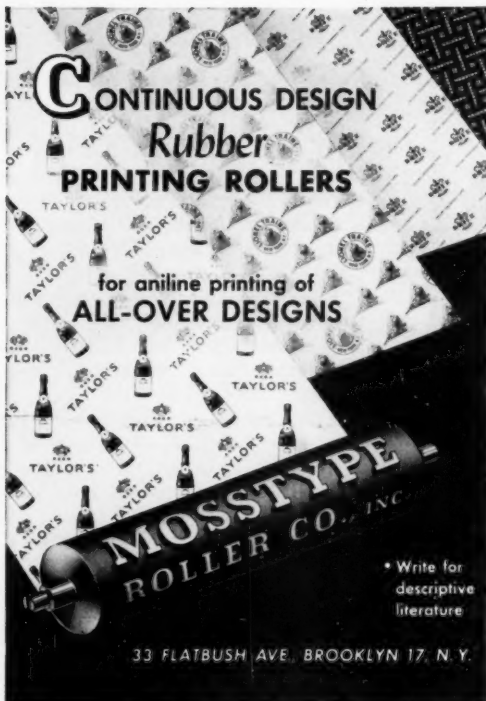
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paper or waxed cellulosic films in one form or another will continue to carry the bulk of the nation's merchandise requiring protection against atmospheric conditions in merchandising channels.

From the point of view of the chemist and engineer, packaging technology offers the following research challenges:

1. Basic information is needed on the mechanism of permeation of packaging films by vapors and fixed gases. Lack of conformance to Fick's Law is conspicuous among cellulosic films.
2. More direct observations and generalizations are needed concerning the equilibrium vapor pressures of solutions saturated simultaneously with two or more water-soluble components.
3. A practical mathematical relationship should be worked out and checked experimentally to permit the estimation of quantitative packaging specifications from observations of measureable product properties and weather data.
4. There is a need for engineering development of high-speed, automatic packaging machinery specifically adaptable to the newer packaging structures.

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Bakery packaging

(Continued from page 99) said to permit the wrapping of the bread while it is still hot and thus seal in freshness of flavor and aroma. Heretofore, all bread had to be cooled to about 98 deg. F. before the baker could start packaging.

The bakery industry is also watching the recent development of pressure-sensitive waxed paper, said to seal without the aid of heat (see MODERN PACKAGING, Sept., 1949, p. 180). Introduced a year ago in household roll form, this new paper has been used widely in the home for wrapping sandwiches, left-overs, etc. Now the makers are giving serious study to its use in the bakery and many other fields of commercial packaging.

The bakery industry is a complex business today with its many types of outlets—chain store, independent store, retail bake shop, route deliveries, etc.—but wherever the question of packaging is raised, whether with the president of the company or a house-to-house route salesman, the answer is that attractive packages are a potent factor in boosting sales. Today's package suppliers, equipment manufacturers and designers are aware of this need and are ready with solutions for hundreds of specific packaging problems in the bakery field.

CREDITS: Markward's "Polka Dot," Schafer's Cellularized Potato White Bread and Honey Crust resin-coated, waxed paper wraps, Kalamazoo Vegetable Parchment Co., Parchment, Mich. Honey-Scolch, Arnold and specialty-bread group wraps, Milprint, Inc., Milwaukee, Wis. Ce-Lect wrapper, Nashua Gummed & Coated Paper Co., Nashua, N. H. Duplex wrapping machine, American Machine & Foundry Co., New York. Hauswald wraps, Pollock Paper Corp., Waterproof-Ohio Div., Columbus, Ohio; cinnamon-sugar packets of Riegel glassine, packed by Cumberland Packing Corp., Brooklyn. Spaulding cellophane wrap, Sylvania Div., American Viscose Corp., New York; printed by Milprint, Inc. Mueller's Party Snack rye wrap and Kay Cookie Co. bags, The Dobeckmun Co., Cleveland, Ohio. Best-Ever glazed doughnut bag made of Celanese Corp. of America Lunarilth by The Dobeckmun Co. Pioneer Fried Pies display container, The Bradley Gilbert Co., Louisville, Ky. Farm Crest pie carton, B. A. Jones & Co., Inc., Cincinnati, Ohio. Kern's hamburger roll bag, Nabisco Fig Newton wrap, Strietmann cookie wrap, Shellmar Products Corp., Mt. Vernon, Ohio. American Bakeries Co., Merita wrap, U. S. Printing & Lithograph Co., Cincinnati, Ohio. Koester's cake carton, Marathon Corp., Menasha, Wis. Tiffany Baking Co. wrap, Crystal Transparent Corp., New York; paper basket, Harvey Paper Products Co., Sturgis, Mich. Norma foil-laminated cookie bag, Kehr Paper Products Co., Philadelphia. Corrugated pan liners, Sherman Paper Products Corp., Newton Upper Falls, Mass. Aluminum tray pack used by Floyd Armistead, Reynolds Metals Co., Richmond, Va. Metal fruit-cake box, Atlantic Can Co., New York; wrap-around label, Tompkins' Label Service, Philadelphia.

Special acknowledgment to: Gordon Carlons, Inc., Baltimore, Md.; Willhauer Paper Box Co., Spartanburg, S. C.; Western Waxed Paper Co., Los Angeles, for information on coatings. Stokes & Smith Co., Philadelphia; Lynch Corp., Package Machinery Div., Toledo, Ohio; Doughboy Industries, Milwaukee, Wis.; Simplex Machine Co., Oakland, Calif., for information on machinery. George H. Sweetnam, Inc., Cambridge, Mass., for information on decorative embossed parchment. E. W. Tweitchell, Inc., Philadelphia, for information on embossed glassines. Sutherland Paper Co., Kalamazoo, Mich., for information on foil-lined Bake-A-Pie plates.

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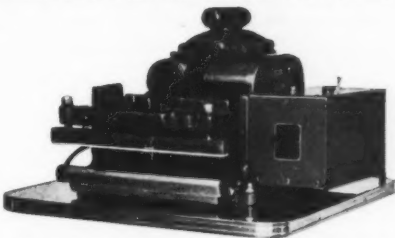
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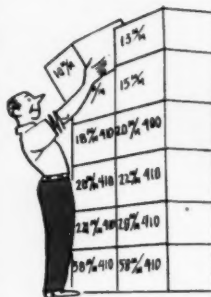
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Packaging Institute preview

(Continued from page 89) of the Program Committee for the entire Forum is very active in the Drugs and Pharmaceuticals Committee, will report on the study of containers for physicians' sampling, a perennial production problem in this industry. There will be an exhibit of successful sample packages.

A discussion of packaging and packing to prevent breakage also is scheduled for this seminar, but the topic had not been assigned at press time.

WEDNESDAY MORNING

"How to Specify for True Packaging Economy."

This topic has been selected as capable of bringing out opportunities for economy and improved quality which are still generally overlooked in package-using industries. In the words of Chairman *Herbert T. Holbrook*:

"True packaging economy, without sacrifice of package performance or design, can only be realized by close, frank and intelligent cooperation between supplier and user. Too often, package buying is allowed to become a routine affair—with bids asked and given without regard to the advances that may have been made in container production machinery and technique; or without regard to possible improvements in sales and display values; or without regard to improved techniques in package handling, storing and shipping.

"Our purpose at this seminar is to present to the user a broad cross-section of expert advice on how a re-examination of his package with the help of his supplier can result in a better package at a lower cost. We are developing our theme also to be of maximum help to those who may be somewhat new to the problem of specifying the procurement requirements for packages and to those who may be faced with a packaging problem different from what they have previously experienced."

Mr. Holbrook is eminently qualified to conduct this discussion. Now sales manager of the Flex-Vac Division of Standard Cap & Seal Corp., he was wartime head of packaging for the Army Ordnance Dept., where the technique of package-specification writing was developed to a high degree. He has been chairman of the Institute's Standards and Practices Committee. He has been prominent in the packaging field since his graduation from Harvard in 1930 and prior to the war was associated with Forest Products Laboratory and Gaylord Container Corp.

The panel includes representatives of every major form of packaging, who will be available for comments and questions. Representing bags will be *Henry W. Stevens* of the Benj. C. Betner Co.; cans, *Roger V. Wilson* of the Continental Can Co.; closures, *Dr. John Sharf* of Armstrong Cork Co.; drums, *D. C. Eldredge* of the Paper Converting Division of Continental Can Co.; glass containers, *J. S. Algeo* of the Hazel-Atlas Glass Co.; plastic packages, *Myron A. Wick, Jr.*, of Plastic Manufacturers, Inc.; shipping containers, *John B. Wyall* of Hinde & Dauch Paper Co.; collapsible tubes,

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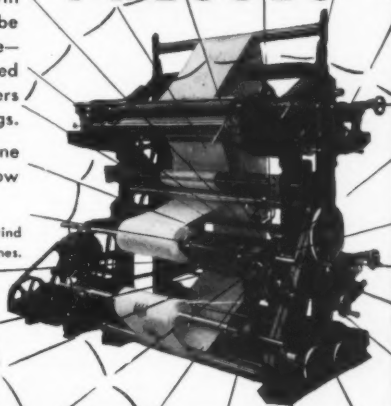
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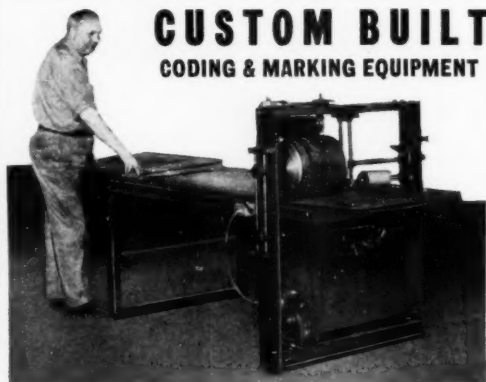
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WEDNESDAY AFTERNOON

"Filling and Labeling Problems." Conducted by *Palmer J. Lathrop*, president of Cameron Machine Co. and previously production manager of Bristol-Myers Co., this will be a "packing-room" session, in which most of the questions are expected to come from the panel to the audience. Panel members, representing varied types of products, will tell of their filling and labeling problems; how far they have gone in their solution and what new equipment they would like to have to further their production-line economies. The information thus developed should prove invaluable to packaging machinery manufacturers and other suppliers.

A. F. Sterenson has been with the Borden Co. in the manufacturing division for most of his long business career and is one of the most vocal of packaging men in expressing his desires for improved machinery and supplies. He will tell specifically about the problems of filling "sticky," hygroscopic materials.

George Garnatz, a graduate chemical engineer, is director of the Kroger Food Foundation, research affiliate of the Kroger Co. He will discuss the packaging of baked products, such as crackers, cookies and cakes, and the difficulties of applying labels to flexible packages.

Maurine Ponder, sole feminine representative on the Forum panels, is a research associate in the Packaging Development and Research Dept. of Joseph E. Seagram & Sons. Working in the distilling company's plants, she has made special studies of the problems of filling an expensive liquid product where accurate control is essential. Her special interest is labeling and the related problems of label flexibility, paper absorbency, positioning and adhesives. She will describe laboratory tests that the company uses to ascertain probable performance in production.

John A. Warren, consultant on packaging for the various divisions of American Home Products Co., will describe various methods used to lower filling and labeling costs, stressing the need for training of machine operators, foremen and maintenance men, proper controls and intelligent selection of types of equipment. Mr. Warren has spent many years in packaging activities, having previously been associated with the National Biscuit Co. and Robert Gair Co. His experience covers purchasing and design, as well as engineering consultation.

Adolph E. Tiesler, in charge of production for Lederle Laboratories, will discuss sterile filling and related problems of the pharmaceutical industry.

H. Oldenburg is general works manager of the Mennen Co. and will have some suggestions for improvements based on his long experience with the filling of powders.

Other members of the panel for this final session of the Forum will be *G. M. Woodruff* of General Foods and *Don Coppel*, chief engineer of the Wagner Baking Co.

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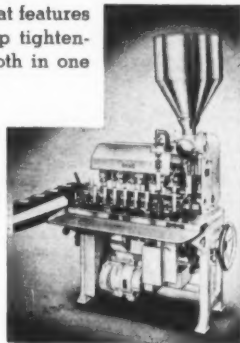
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Buyer!**

use
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service-tested
ADHESIVES



**for every
PACKAGING
APPLICATION**

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• **Thrifty adhesive users all across the country are specifying Findley "Service-Tested" Adhesives for their packaging, labeling and converting needs...to handle every stock and finish, to work on all types of equipment.**

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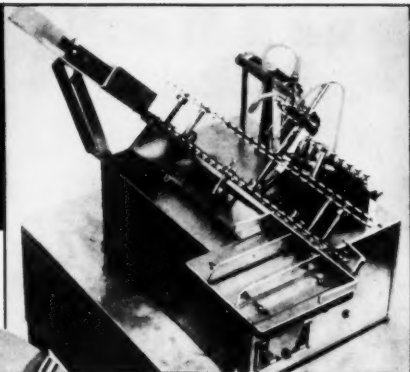
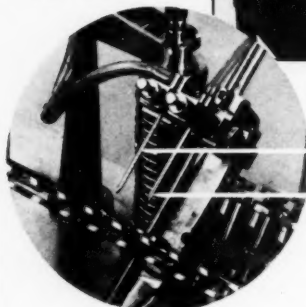
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with the **NEW E-Z LABELER**

**up to 30 UNITS PER MINUTE
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A reasonably priced, re-use container for fruitcakes, candied fruit, etc. 8" diam. 3 1/4" deep.

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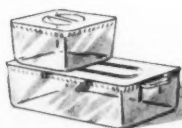
You get a selling package of your own design that works hard on the counter to put added punch into your product merchandising . . . plus the satisfying job it does for you in every customer's home by promoting repeat sales.

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You'll be satisfied in picking Amos . . . write for our new 52-page booklet, picturing in full color the sales and engineering ideas developed by Amos for every industry.

The industry's leading molders of distinctive plastic packages...





IT'S GLUED TO STAY THE STEIN HALL WAY!

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JOIN THE BIGGEST SINGLE EFFORT EVER MADE TO SELL PLASTICS TO AMERICAN INDUSTRY

Come January, the plastics industry will be presented with the most powerful sales aid ever placed in its hands. On every score—subject matter, volume of editorial content, circulation and format—the January issue of **MODERN PLASTICS** will measure up as the most significant edition ever published.

SOLE OBJECTIVE:

TO SELL AMERICAN INDUSTRY ON PLASTICS

The January issue will be an out-and-out, meticulously documented promotion piece aimed at *proving* the indispensability of plastics to every segment of American industry.

Complete in this one issue—and with **DOUBLE** the normal amount of editorial material—will be an industry-by-industry, product-by-product analysis showing **HOW** and **WHY** plastics build better products, better value, better performance, better appearance or lower price.

Each case history will be documented with every available fact and figure relating to production, merchandising, marketing, sales and costs!

Complete and self-contained, this issue will present so powerful and convincing a message that it will become an essential sales tool for every salesman in the industry.

CIRCULATION WILL HIT 25,000- GUARANTEED

To make certain that the issue reaches *top management* in every plant where plastics can find a major market, the regular circulation will be augmented by selective distribution to hand-picked lists of important manufacturing companies throughout the country. As a result, circulation will reach a guaranteed figure of 25,000—or about 25% more than that of a regular issue.

YOU CAN SHARE IN THIS GIANT PROMOTION

Every company in the plastics industry has a stake in the tremendous sales promotional effect which the January issue will create. Your own special advertising message—built, preferably, on the theme of the January number, “**Plastics Build Better Products and Better Values**”—will enable you to share in the sales-stimulating effect of this uniquely powerful issue.

Start planning your advertisement now. But don't forget the first important step: write, phone or wire to get your space reservation in. Final deadline is November 28. *Modern Plastics*, 122 East 42nd Street, New York 17, N. Y.

All classified advertisements payable in advance of publication. Rates: \$5.00 up to sixty words; enclosed in border, \$10.00 per inch.

Classified Advertisements

MODERN PACKAGING reserves the right to accept, reject or censor classified copy.

For further information address Classified Advertising Department, MODERN PACKAGING, 122 East 42nd Street, New York 17, N. Y.

EMPLOYMENT • BUSINESS OPPORTUNITIES • EQUIPMENT (USED OR RESALE ONLY)

MACHINERY FOR SALE

PACKAGING EQUIPMENT for sale: Three (3) complete Packomatic automatic lines, 70 cartons per minute, for dry, granular or powdered material such as soap, cereal, etc. One line essentially new, other two lines have been used one to two years. Each unit consists of following equipment—Packomatic Model 16 Top and Bottom Sealers, Dryers, complete w. drives and motors, carton size 6" x 2½" x 8½", \$4,000.00; Packomatic Automatic Carton Feeders for Model 16 Top and Bottom Sealers, \$2,695.00; Packomatic Telescoping Fillers for Rectangular Sealed Cartons complete w. drives and motors, \$4,000.00.

MISCELLANEOUS EQUIPMENT for sale: B' Niagara Metal Shear #196—\$195. (2) Royal Bean Pumps 11 gpm—\$500 each. Frick Ammonia Compressor w. ammonia receiver and coils—\$125. (10) Electric Motors, 3 phase, 220 V, 50 and 60 cycle, ½ to 10 HP. GE 7½ & 3¼, 220 V, 1710 850 RPM Electric Motors—\$95. (2) GE 5 & 2½, 220 V, 1710 850 RPM Electric Motors—\$75 each. Automatic Transporter TW 6760 Platform Type—\$600. (2) Automatic Transporters, TW 6760 w. 1 D-4 ten cell Edison Battery—\$600 each. (2) Baldor Battery Chargers, type 60-F, 220 V, 60 cycle, 15 amp., with automatic timers—\$145 each. Purex Corporation, Ltd., 9300 Rayo Avenue, South Gate, Calif., Mr. Latulippe.

EQUIPMENT FOR SALE: Automatic Transporter, TW 6760 w. 1 C-4 6 cell Edison Battery; also Baldor Battery Charger w. time clock—\$550. Yale hand lift truck—\$125. Purex Corporation, Ltd., 6000 Denton Drive, Dallas, Texas, Mr. R. J. Rees.

EQUIPMENT FOR SALE: Automatic Transporter TW 6760 w. 1 D-4 ten, all Edison Battery and Baldor Charger—\$600. Automatic Transporter, TW 6760 w. 1 D-4 ten cell Edison Battery—\$550. Industrial Battery Charger type 60-F, 220 V single phase, 60 cycle D.C., Code 803 for ten Edison cells—\$75. Baldor Battery Charger type 60-F, 220 V, 60 cycle—\$125. Purex Corporation, Ltd., 4600 Chippewa Street, St. Louis, Mo., Mr. L. J. Pelletier.

NOW AVAILABLE at Bargain Prices. Pneumatic Scale Co. Automatic Carton Unit. Consisting of: Automatic Carton Feeder, Bottom Sealer, Rotary Filling Machine, Top Sealer and Interconnecting Conveyor. Standard Knapp No. 429 Carton Sealer, 10 and 18 ft. Compression Units. World Straightline Bottle Labeling Machine, 120 per min. Burt Automatic adjustable Wraparound Can & Jar Labeler. Stokes & Smith G1 and G4 and Automatic Duplex Auger Powder Fillers, Cap-press Attachment. Triangle SFA Auto, Net Weigher and Carton Sealer. Filler L, 4 and B Head S.S. Piston Fillers. Cero Auto Carton Closing Machine. Triangle U1 Auger, G2C and A60A Electric Pak Fillers. Horis S.S. Rotary Gravity Filler. Pneumatic Scale Auto, Tite-Wrappers. Package Machinery Model FAQ, FA2, and FA Wrappers. Hayson 3-7 and Knapp JS Automatic Wrappers. Many Other Items of Interest in Stock—Fully Guaranteed. Tell Us Your Requirements. Union Standard Equipment Company, 318-322 Lafayette Street, New York 12, N. Y.

EQUIPMENT FOR SALE: (100) Flats made by Colson, 42" x 54" and 11" off floor, w/2-8" hard rubber wheels; also (3) hand jacks to lift front of flats—Flats \$10 each; Jacks \$25 each. Purex Corporation, Ltd., 335 Mehle Street, Arabi (New Orleans), La., Mr. Turner.

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"HORNE-BILT" packaging conveyors, Unscramblers, Accumulating Tables, Transfer Bins, etc. Complete conveyor line, engineered to fit all situations. Easy to price and sell. Some good territories open. State what territory desired and what facilities available. Horne Machinery Co., Inc., 1188 Harrison St., San Francisco 3, Cal.

IOWA & MINNESOTA territories available to manufacturers representative on line of converted flexible packaging materials including printed Cellophane, Diaphane, Glassines, Foils, Pliofilm and Acetate in sheets, rolls, and bags. Also outstanding line of embossed and die-cut foil lables and seals. Address Box 885, Modern Packaging.

MANUFACTURER'S REPRESENTATIVES wanted to sell new, highly efficient, automatic carton filling and sealing machine. Various territories are open. Liberal commission. Furnish full information concerning present lines, territory covered, background, experience and contacts. Clybourn Machine Corporation, 6479 Avondale Ave., Chicago, Ill.

SALESMAN—Well established Chicago converter has openings in Wisconsin, Michigan, Indiana, Chicago and Ohio. Complete line of converted cellophane, polyethylene, acetate, and pliofilm. Box 886, Modern Packaging.

SALESMAN WANTED. An established converter of printed and laminated wax papers, cellophane and foil wants an experienced salesman who knows the users of these products and has earned over eight thousand dollars per year. Compensation commensurate with ability to produce. Give details of your experience in first reply. Our force knows of this advertisement. Box 887, Modern Packaging.

MISCELLANEOUS

WANTED: Plastic scrap and rejects in any form. Cellulose Acetate, Butyrate, Polystyrene, Vinyl, Polyethylene, etc. We pay top prices for clear, colored and printed scrap in any quantity. Box 781, Modern Packaging.

REPRESENTATIVE WANTED: Young corporation, personnel experienced in engineering, production and sales. All phases of the packaging field and strategically located in Metropolitan New York area—wishes to represent progressive manufacturer of equipment and supplies. Box 888, Modern Packaging.

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AVAILABLE—TOP-FLIGHT Sales and Merchandising Executive—This man has had more than 20 years' experience in advertising, sales promotion and selling in the packaging industry. Has been in present position as Sales Manager for large corporation 12 years with outstanding record of accomplishment. For personal reasons seeks change. You can get full details by writing Box 890, Modern Packaging.

SALES MANAGER'S contract terminating. Directing sales of national producer, printed and converted cellophane, acetate, pliofilm, combination specialties and other transparent products to all packaging trades and fields. Excellent trade and promotion background, personal sales and executive direction. Desire to make similar or other interesting connection same or allied industry with well rated progressive company. Box 892, Modern Packaging.

EXECUTIVE CHEMIST with 12 years' experience in charge of successful development and technical service on rotogravure and aniline inks and adhesives for Cellophane, plastic films, paper, and leather. Interested in responsible position with ink manufacturer or converter. Broad technical knowledge of raw materials. Business and sales training. Box 893, Modern Packaging.

MODERN PACKAGING



Top.....#11 Tube
Center.....#13 Tube
Bottom.....#14 Tube

Ask for Samples.
P.S.
Ask for a copy of our
new Folder, identifying
and illustrating Package
types and sizes.

3 CLEVELAND CONTAINER Mailing Tubes

Made to Meet Specific Needs

OUR THREE-PIECE TELESCOPE MAILING TUBE, #11 . . . sturdy, spirally wound wall construction with tight fitting metal ends. Label sealed . . . available in diameters from $1\frac{1}{2}$ " to $6\frac{1}{2}$ ". Lengths as desired.

OUR #13 MAILING TUBE with firmly attached cuffs and spirally wound sturdy walls. Available in diameters and lengths as desired.

OUR #14 MAILING TUBE with curled ends, likewise, has quality and price advantages. Available in diameters and lengths as desired.



Cleveland Containers, Mailing Tubes and Combination Metal and Paper Cans are quality-at-low-price products . . . the result of over 25 years of packaging production experience.

OUR CREATIVE DESIGN DEPT. is at your service to give you the type of container you desire, with prices and quick delivery performance that ensure satisfaction.

The **CLEVELAND CONTAINER Co.**
6201 BARBERTON AVE. CLEVELAND 2, OHIO

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- Plastic and Combination Paper and Plastic Items

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SALES OFFICES: Room 3022, Grand Central Terminal Building, New York 17, N. Y., also 841 Main St., Hartford, Conn.
CANADIAN PLANT: The Cleveland Container Canada, Ltd., Prescott, Ontario. Sales Offices in Toronto and Montreal



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Modern
packaging



A BRESKIN PUBLICATION

Published by Modern Packaging Corp.
122 East 42nd Street, New York 17, N. Y.



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From labeling to case sealing...there's a Star Brand Adhesive formulated to deliver exactly the results you're looking for. For exceptional conditions requiring a *special* adhesive, try our RESINOUS and LATEX BASE emulsions . . . and our LACQUER TYPE adhesives.

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- STAR Brightwood Gum
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- STAR Tube Glue
- STAR Lap End Paste
- STAR Tightwrap Glue

... and STAR Labeling Glues in Ice-proof and Semi-ice-proof formulations.



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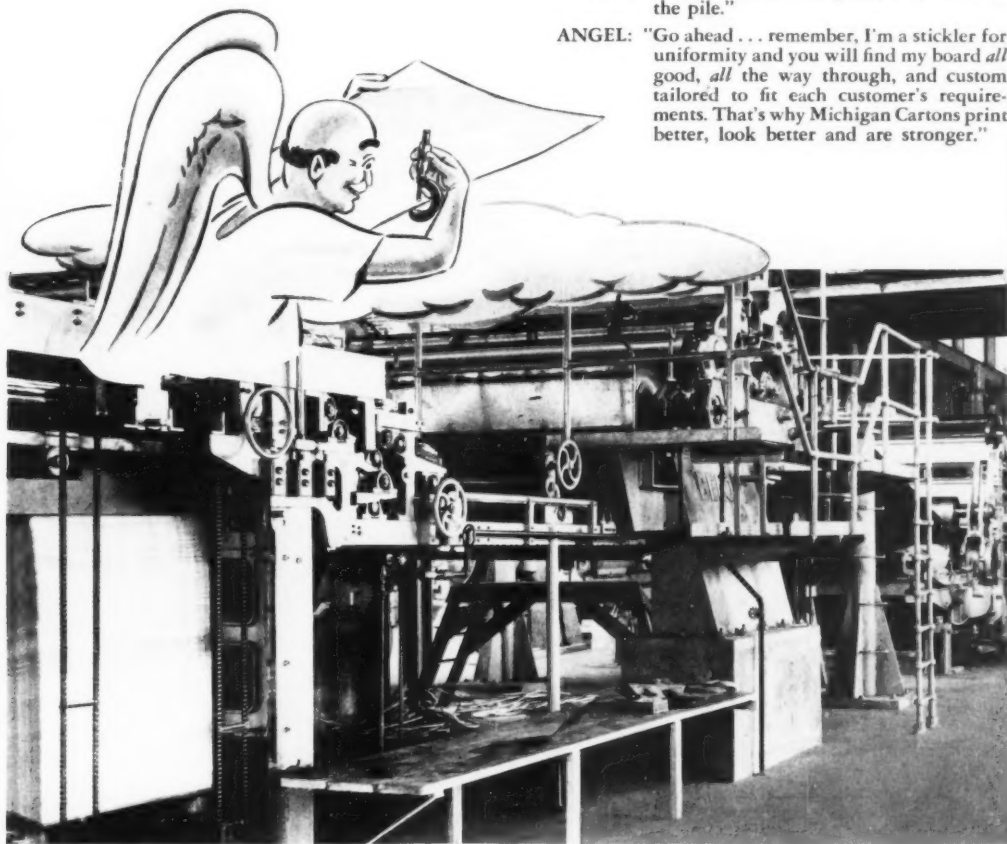
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The "Angel" *is a stickler* *for uniformity*



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YOU: "... but you know that old saying about beauty being only skin deep!"

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ANGEL: "Go ahead... remember, I'm a stickler for uniformity and you will find my board *all* good, *all* the way through, and custom tailored to fit each customer's requirements. That's why Michigan Cartons print better, look better and are stronger."



Let us show you why we believe there are no finer cartons than Michigan Cartons... in originality of design, fine printing and protection.

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six little cheeses...
all dressed up and
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Hickory Smoked, Onion and Appetizer wraps are No. 300 PC duPont Cellophane; others are No. 140 P4 1/4 V Pliofilm . . . all printing is Shellmar Colordense